OLD!
ULTIMATE
90s
RETRO GAMING
COLLECTION
ESSENTIAL GUIDE TO GAMING'S RADDEST DECADE
FROM THE MAKERS OF
retro GAMER
PACKED WITH CLASSIC GAMES & ICONIC CHARACTERS
Digital Edition
FUTURE
THIRD EDITION

WELCOME TO

ULTIMATE 90s RETRO GAMING COLLECTION

The Nineties were an exciting time to be a gamer. Most of the hard work had already been done by pioneering developers during the Seventies and Eighties, meaning talented coders were able to take these existing themes and ideas and build upon them. As a result some of the greatest games of all time came from this halcyon period, including *Super Mario World, Sonic The Hedgehog 2* and *Street Fighter II: The World Warrior.*

That being said, the Nineties were a transitional period as well, as 3D gaming started to become the norm and many systems moved over to formats like CD-ROM. The Nineties were also a time when home computer gaming was on the wane as more and more gamers were turning towards the exciting new consoles that were coming out, including Sony's PlayStation, which would not only shake up the industry, but help shape it into what we enjoy today.

With that in mind, this new book is dedicated to the greatest games that were available to play during this amazing decade, from the aforementioned *Sonic The Hedgehog 2* to *Super Mario World, Tomb Raider* and the excellent *Ridge Racer.* Get ready for a serious nostalgia hit.

FUTURE

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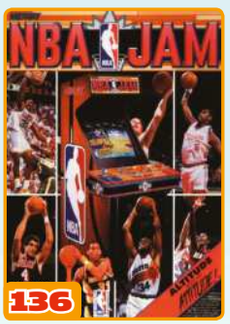

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WHY
90s
POW

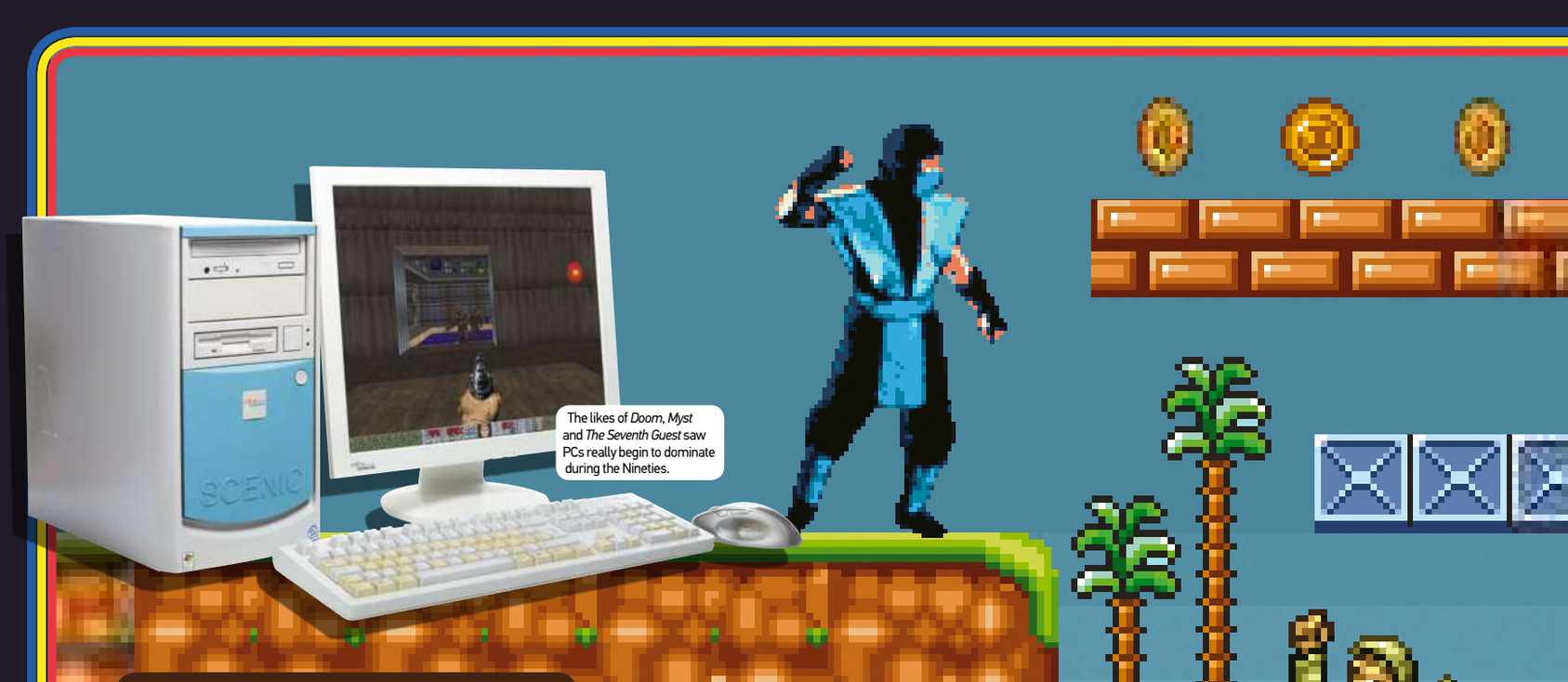
GAMING RULED

The Nineties was an exciting time to be a gamer thanks to the advancement of game design and the rise of 3D. Here's our guide to one of the most important decades of gaming

One of the great things about gaming in the Nineties was that most of the heavy lifting had been done in the decades before, allowing developers and publishers to simply concentrate on creating excellent new games. It was still, admittedly, a time for excitement and new things to be discovered, and it was also a time where gaming began to make huge advancements, at least from a technological point of view.

Granted, the Eighties gave us an idea of what the future of games could look like with the arrival of isometric 3D and 3D polygons, but it was the Nineties, particularly the late Nineties where 3D gaming became the norm, rather than the exception. Some of the most important 3D games of all time were created during this period, including *Super Mario 64, The Legend Of Zelda: Ocarina Of Time, Tomb Raider, Final Fantasy VII* and *Daytona USA*. It's telling that most of these games came from Japanese developers because the Nineties represented another big shift in gaming, namely the dominance of Japan.

While Japanese giants like Nintendo, Sega, Namco and Square were making good progress during the Eighties, it was still a time where the likes of Atari, Ocean Software, Mastertronic and Codemasters ruled, mainly because home computers were generally more widely available than their console counterparts. That would all begin to change in the Nineties, however, and as consoles like the Game Boy, Mega Drive and Super Nintendo rose to power in the early half of the decade, the PlayStation and Nintendo 64 would find success in its later half. Before all that though, let's take a brief look back over the previous decade.

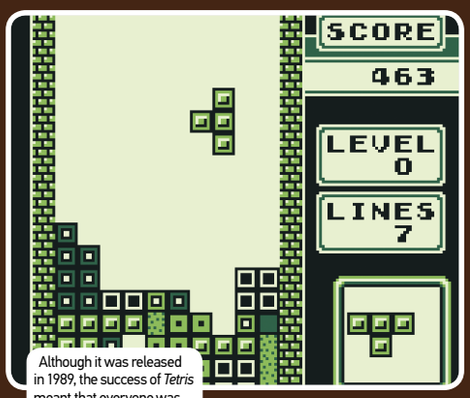


The likes of *Doom*, *Myst* and *The Seventh Guest* saw PCs really begin to dominate during the Nineties.

END OF THE EIGHTIES

While we won't stay in the Eighties for long, it's important to understand what the lie of the land was like if you were a gamer during that period. Early consoles like Atari's 2600 had proven to be extremely popular with gamers, but the Eighties was really the era of the home computers, which appeared to be everywhere. Initially early systems would come in kit form, allowing them to be built from scratch, but as the Eighties progressed and the systems became more complex, virtually all were simply manufactured. Systems like the ZX Spectrum, BBC Micro and Amstrad CPC proved hugely popular in Europe, while the likes of the Atari 8-bit range and Apple Macintoshes appealed to gamers in the US. The Commodore 64 was one of those rare systems that did well on both sides of the pond and would eventually go on to become the most successful computer of the period.

Arcade games were still a huge pull for gamers during the Eighties as they often delivered a gaming experience that was often extremely difficult to replicate in the home. That didn't stop developers from trying however and as a result conversions of popular arcade games dominated most of the Eighties. There were still plenty of original games of course, but publishers were quickly realising that even a lacklustre port could do good business if it was released at the right time of year (typically Christmas). 16-bit systems would also start to appear towards the end of the Eighties, paving the way for some of the fiercest battles between publishers that the industry would see.



Although it was released in 1989, the success of *Tetris* meant that everyone was still playing it years later.

Despite its advancing age the Amiga was still attempting impressive stuff, as *Alien Breed 3D* proves.

1990: NEW BEGINNINGS

The start of the Nineties introduced one of the most beloved games systems of all time: Nintendo's Super Nintendo. Released in Japan as the Super Famicom, Nintendo's machine hit the ground running with two games: *Super Mario World* and *F-Zero*. One was an incredible sequel to its popular *Super Mario* series; the other was a sensational racing game that showed off the power of Mode 7.

Nintendo's machine wasn't the only system to get released in 1990, however. The Mega Drive received its official European launch and was released alongside the likes of *Golden Axe*, and *Super Thunder Blade*. Sega also released its competitor to the Game Boy, the Game Gear in Japan. The colour handheld would eventually go on to compete against Nintendo's portable, as well as Atari's Lynx, which had launched alongside the Game Boy in 1989. SNK also entered the console market with its Neo-Geo AES, a magnificent system with games that were identical to SNK's own arcade games. Sadly, the machine was prohibitively expensive, with games costing in the hundreds of dollars, meaning it never made much of an impact in the West.

Game wise, LucasArts released the excellent point-and-click adventure, *The Secret Of Monkey Island*, *Wing Commander* dazzled PC owners, *Pit-Fighter* and *Smash TV* proved the arcade scene could still delight, while Nintendo released the excellent *Super Mario Bros 3*, one of its last big games for the NES.

1991: INTRODUCING SONIC THE HEDGEHOG

Although Sega already had two notable mascots in the form of Opa-Opa and Alex Kidd, it knew that neither was capable of taking on Nintendo's mighty plumber. As a result Sega held an internal competition to find a suitable new mascot for the company. The end result was a blue hedgehog called Sonic who starred in one of the most exciting videogames of the year. Such was his success he led to countless clones, as other developers were desperate for their own 'mascot with attitude'. Some would succeed, but many would fail and it's no surprise that Sonic remains an important gaming icon today while many of the others stay forgotten.

Sonic aside 1991 was a fantastic year for games. Puzzle games got a shot in the arm with the excellent Amiga hit, *Lemmings*, which became such a success for DMA Design that it was ported to countless other systems. Another successful Amiga game was *Alien Breed*, which fused the sci-fi thrills of *Aliens* with the arcade hit *Gauntlet*. Cinematic adventure *Another World* would make its debut, Electronic Arts would unleash the excellent motorbike combat game, *Road Rash*, while AOL, TSR, SSI and Stormfront Studios would join force to launch epic MMORPG, *Neverwinter Nights*. One of the most important games of the year however would turn out to be *Street Fighter II: The World Warrior*, which reinvented the one-on-one fighter and would shape the genre for years to come.

In terms of hardware it was relatively quiet. Sega's add-on for the Mega Drive, the Mega-CD was released in Japan, the Super Nintendo was launched in the US while Atari's Lynx tried to save face against the Game Boy with a sleek new makeover.

Super Mario Kart was a fantastic gaming experience and a superb use of Mode 7. It sold bucket-loads as a result.

1992: THE CONSOLE WAR HEATS UP

If you needed further proof of the importance of Japanese gaming, you only had to look at what was happening at Atari. The struggling developer was failing to attract third parties to the Lynx and began dropping support for its Atari 8-bit range, as well as the Atari 7800 and its incredibly successful Atari 2600. The same year saw the Apple II GS cancelled and the ZX Spectrum finally bit the dust after an impressive ten years on sale, meaning it actually managed to outlast Commodore's Amiga 500, which had been put out to pasture in 1991. Of course, games were still getting made for several of these systems but a change was in the air and it had a Japanese theme to it.

This Japanese dominance would ultimately kick-off between Sega and Nintendo, who were viciously at each other's throats with aggressive marketing campaigns focused on their 16-bit consoles and their respective handhelds. Sega proved to be a strong competitor during this period, mainly due to Sonic (whose second game arrived in 1992) and its approach to censorship. When the bloody *Mortal Kombat* launched in arcades later that year, the Mega Drive port released the following year featured blood, while SNES owners had to make to with their heroes spraying sweat. Sega's console also got a shot in the arm from Electronic Arts who released a bunch of games during the early Nineties, which were typically better on Sega's console.

That's not to say it wasn't all about Japan however. Amiga's powerful Amiga 1200 was released, Philips entered the videogame market with its ambitious multimedia console, the CD-I, teaming up with Nintendo in the process, while Activision, gaming's first third part publisher, filed for chapter 11 bankruptcy (it would return, though). While there wasn't much new hardware around, there were still plenty of great games appearing with the likes of *Dune II*, *Ultima VII: The Black Gate* and *Wolfenstein 3D* exciting PC gamers, *Super Mario Kart* proved that Mario was just as adept as taking corners as he was at jumping on the heads of Goombas, while *Virtua Racing* was an exciting arcade game that made big advancements with polygon technology.

DEFINING SYSTEMS

GAME BOY

YEAR RELEASED: 1989

While Nintendo's handheld was released at the end of the Eighties, it's very much a Nineties system. Massively popular on release, its simple games like *Tetris* saw it crossing generations, while its licensed games were a huge hit with kids. Two high charting singles based on *Super Mario Land* and *Tetris* were even released.

The popular Game Boy helped Nintendo dominate the handheld market, something it still does to this day.

MEGA DRIVE

YEAR RELEASED: 1989

This is another Eighties system that really found its success in the Nineties. Lots of great arcade conversions, a little hedgehog called Sonic and plenty of excellent exclusives saw Sega break Nintendo's stranglehold on the games market. It was a staggering achievement and it remains Sega's best-selling machine.

Sega's most successful home console. Look out for a miniature version of it, which is out later this year.

PLAYSTATION

YEAR RELEASED: 1994

Sony's console changed everything. If you needed further proof consider this: no home games machine had sold over 100 million units before it, a truly amazing achievement. Its CD-ROM-based technology, advanced 3D capabilities and cool marketing ushered in a new era of gaming. Even today the brand remains incredibly successful.

Sony's PlayStation was an absolute game changer. Much of today's gaming is owed to its gigantic success

SUPER NINTENDO

YEAR RELEASED: 1990

Nintendo's follow-up to the NES became an essential purchase for many gamers during the Nineties. It had an amazing array of games that covered all sorts of genres, while its Mode 7 capabilities gave it more graphical grunt than Sega's Mega Drive. It remains one of the most popular systems of all time.

Nintendo's 16-bit console was a big step up compared to the SNES and has an amazing library of great games.

NINTENDO 64

YEAR RELEASED: 1996

Yes it's a third Nintendo system, but that just highlights how well the company did during the Nineties. While it sold fewer units than the Super NES, classic games like *Ocarina Of Time*, *Super Mario World* and *GoldenEye* ensured that Nintendo's console remained coveted by gamers.

The Nintendo 64's controller is unique and unusual. Even today some aren't sure how it's meant to be held.

The Amiga CD32 was an interesting project that failed to gain traction. It was on sale for less than a year!

The success of *Shadow Of The Beast* on Amiga led to two sequels on the system. This is the first one, released in 1990.

1993: CD GAMING TAKES OFF

One of the biggest changes during the Nineties was the way games were being presented to the consumer. While cartridges were still the desired medium, it was becoming harder and harder to ignore the opportunities that CD-ROM-based technology was offering.

CD games weren't exactly uncommon by this point thanks to add-ons for both the Mega Drive and NEC's PC Engine, as well as Philip's CD-I console, which had been released the year previously, but 1993 is arguably when the general public realised that this new-fangled CD-ROM technology wasn't just good for listening to Dire Straits' *Brothers In Arms*.

1992's *Night Trap* and similar games had proven the power of Full Motion Video (or FMV) in games, but it was *Myst* and *The Seventh Guest* which really highlighted just how useful extra storage capacity would be for videogames. Both titles were huge hits on PC, selling millions of units. CD-ROM also proved a good way of revisiting classics games, with companies like LucasArts releasing talkie-based versions of their classic point-and-click adventures and Sega re-releasing Mega Drive games on its Mega-CD add-ons with new FMV intros and enhanced soundtracks.

It wasn't just Sega who realised that the CD-ROM medium could revitalise old games. Commodore saw the allure too, releasing the Amiga CD32, which allowed cynical publishers to take existing Amiga games and add a new soundtrack or FMV into. And then of course there was id Software's *Doom*, an incredible first-person shooter that would revolutionise its genre for decades to come.

At this point it's worth briefly talking about the 3DO, an impressively ahead-of-its-time console from EA founder, Trip Hawkins, that promised to revolutionise console gaming. Sadly for Hawkins, Sony had similar ideas.

1994: SONY ENTERS THE GAMES MARKET

Although it didn't arrive until the end of 1994, it would be irresponsible to not mention the sheer impact of Sony's PlayStation. Sony's 32-bit games machine came about after Sony's previous plans to create a CD-based console with Nintendo turned sour. Sony powered ahead and not only improved on the template that Trip Hawkins' team had created with the 3DO, but also married it to impressive 3D capabilities, a whole host of third part developers and extremely clever marketing that propelled the system into the public's consciousness like no other console had managed since the early days of the Atari 2600 and NES.

The PlayStation seemingly had everything. It had incredible arcade ports that closed the gap between the arcade and the home, a relatively cheap entry point and an exciting demo disc that came packaged with the machine and featured an awesome looking *Jurassic Park*-styled T-Rex. It was exciting, powerful technology and it immediately made the 2D machines look incredibly dated.

Sega and Nintendo certainly weren't being idle however. Their 16-bit consoles were still doing very well thanks to classics such as *Sonic The Hedgehog 3* and *Super Metroid* respectively. *Earthworm Jim* appeared later in the year and proved to be one of the few enduring mascots of the period, while *Donkey Kong Country* featured impressive new pre-rendered graphics that led many to believe it wasn't running on a humble SNES. It wouldn't be enough however and both companies worked on follow-ups. The Saturn, was a 2D powerhouse that released shortly before the PlayStation, while Nintendo's gamble would happen a little later.

1995: SEGA'S BIG GAMBLE

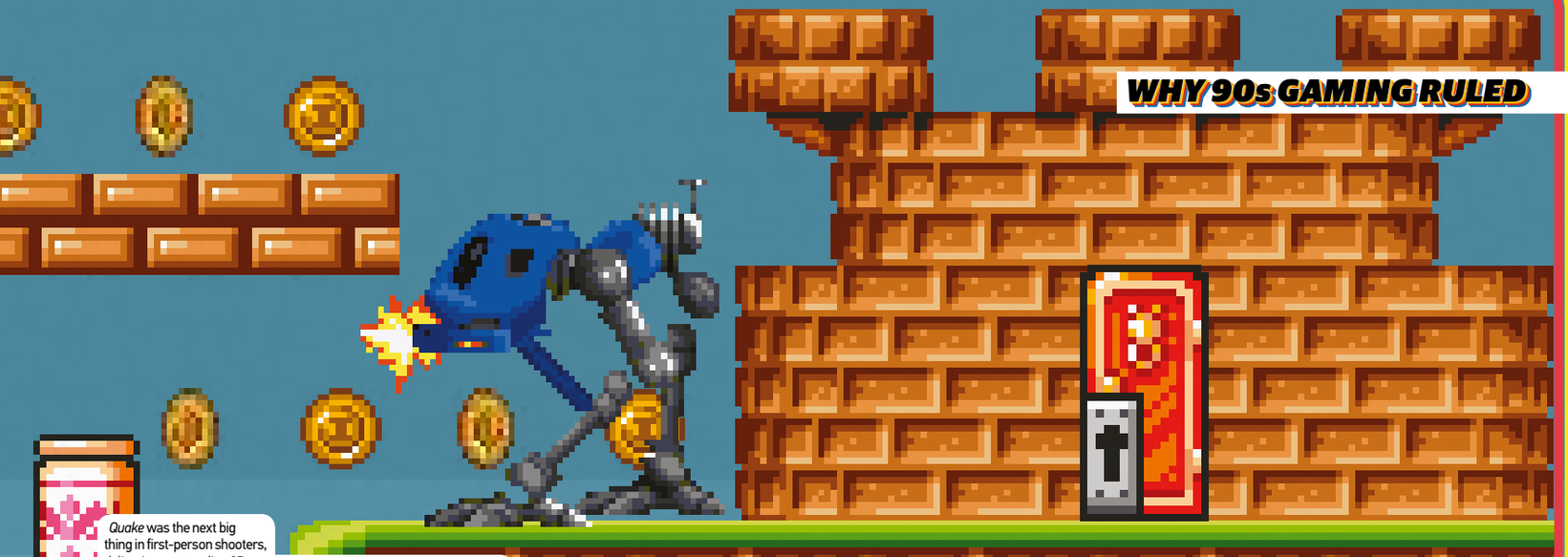
Sega released the Saturn in America in early May, hoping to steal some of Sony's thunder by getting its system out much earlier than anyone in Sega Of American anticipated. The gamble didn't work and Sega had to make do with a drastically cut down roster of games, including ports of *Daytona USA* and *Virtua Fighter*. Sony meanwhile took its time and in a small period of time it obliterated the lead that Sega had managed to make.

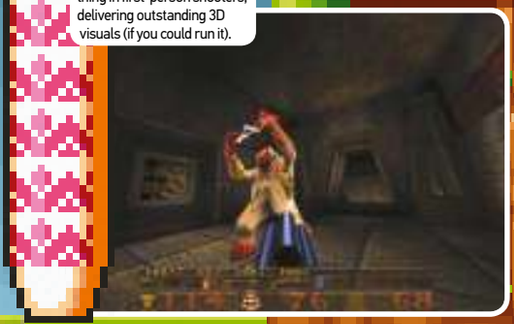
1995 is also notable for seeing the debut of one of Nintendo's few hardware flops, the Virtual Boy. This clever little device featured 3D games, long before the 3DS came to be, but it struggled to find a foothold with gamers and was discontinued just five months after its July debut. Ouch!

The Mega Drive was winding down, but there was still the odd hit to enjoy, including *Comix Zone*, *Phantasy Star IV* and *Ristar*. The company even released a portable Mega Drive in the States called the Genesis Nomad, but sadly it was never released in Europe and is now highly collectible.

On home computers, *Dark Forces* was essentially *Doom* with a *Star Wars* skin, *Command & Conquer* helped kick-start the RTS genre, *Full Throttle* and *I Have No Mouth, And I Must Scream* proved that there was still plenty of interest in adventure games, while *Worms* turned out to be a fun multiplayer party game. Would its popularity last, though?

Crash Bandicoot became extremely popular and was seen by many as Sony's unofficial mascot.





Quake was the next big thing in first-person shooters, delivering outstanding 3D visuals (if you could run it).

Super Smash Bros allowed you to beat up the likes of Mario, Pikachu and Link. It became a big success.

1996: NINTENDO RAMPS THINGS UP

1996 saw Nintendo enter the 32-bit market with its 64-bit Nintendo 64. Interestingly, the system was cartridge-based and it came with an unusual three-pronged joystick and *Super Mario 64*, the greatest 3D platformer of the era. It wasn't the only 3D game turning heads though. *Quake* was another masterpiece from id Software that highlighted just how powerful home PCs were becoming, while Core Design's *Tomb Raider* introduced the gaming world to Lara Croft, who would go on to become just as iconic as Sonic and Mario.

Guardian Heroes, NiGHTS Into Dreams and *Panzer Dragoon Zwei II* proved there was still plenty of life left in the Saturn. *Resident Evil, Crash Bandicoot* and *WipEout 2097* were huge hits for Sony's PlayStation, while the likes of *Super Mario RPG, Kirby Super Star* and *Terranigma* proved that the SNES was still a contender.

1997: RARE MAKES ITS MARK

Although it was quickly becoming obvious that the N64 wasn't going to dominate in the same way that the Super Nintendo had, there were still plenty of great games to enjoy on Nintendo's system. *Mario Kart 64* finally arrived in the West and proved to be an enjoyable follow-up to the SNES classic. It was becoming obvious though that Rare was one of the real jewels in the console's crown. The company had been purchased by Nintendo during the Eighties where it had released countless NES games. Titles like *Blast Corps* and *Diddy Kong Racing* proved that the purchase had been a sound one, and *GoldenEye* become one of the many killer apps for the system. Here was a game based on a popular movie that was not only good, it reinvented first-person console shooters. At least until *Halo: Combat Evolved* arrived.

The PlayStation continued to dominate and could seemingly do no wrong. The seventh part of the *Final Fantasy* series (a franchise once associated with Nintendo exclusivity) arrived on the console and helped cement the popularity of the Japanese RPG in the West. *Grand Theft Auto* proved to be a huge hit, with gamers loving the violence found in the top-down action game, while the English release of *PaRappa The Rapper* introduced many gamers to the joys of rhythm action games for the first time.

PC gaming had a good year, too with *Dungeon Keeper, Star Wars: X-Wing Vs TIE Fighter, Fallout, Total Annihilation, Blade Runner* and *The Curse Of Monkey Island* covering a variety of genres and proving that home computers could still offer a solid alternative to the rising popularity of consoles.

Some people will say that *Diddy Kong Racing* is actually better than *Super Mario Kart 64*. Play it to find out.

Games like *Resident Evil* proved that games and gamers were growing up. The series is still popular today.

1998: THE BEST YEAR OF THE NINETIES?

Many proclaim that 1998 was one of the strongest years of the decade and when you look at the sheer quality of games that was released it's hard to disagree. Nintendo's *The Legend Of Zelda: Ocarina Of Time*, was not only Link's first 3D adventure, but set the template for the series to come, introducing all sorts of cool ideas including an excellent lock-on feature that made combat far easier than in previous 3D games. Valve's *Half-Life* reinvented the first-person shooter, proving that they could have engaging, absorbing stories, *Resident Evil 2* cemented Capcom's reputation as masters of the survival horror game, while Hideo Kojima and *Metal Gear Solid* proved that videogames really could become cinematic masterpieces in their own right. Titles like *Panzer Dragoon Saga*, *Burning Rangers*, *Sonic R* and *Radiant Silvergun* proved that Sega's penultimate console still had a few tricks up its sleeve, while Rare's *Banjo-Kazooie* was a fantastic N64 game that threatened to topple *Mario* as the best platformer on the system. Bioware's *Baldur's Gate* helped get PC gamers excited about Dungeons & Dragons games again, while *Grim Fandango* turned out to be LucasArts' last point-and-click adventure game.

Spyro The Dragon made its debut on the PlayStation, *Castlevania: Symphony Of The Night* rebooted the popular series, setting a template for the franchise that would continue to its later portable adventures, while the arcade game *Dance Dance Revolution* would capitalise on the rhythm action genre in a way that previous entries hadn't managed.

On the hardware side of things, Sega was preparing to release the Dreamcast in Japan, while the handheld market was reignited thanks to the Game Boy Color, SNK's Neo-Geo Pocket and Bandai's WonderSwan, which had been created by Gunpei Yokoi, the creator of the Game & Watch and Game Boy. Would his new handheld achieve the same success, though?

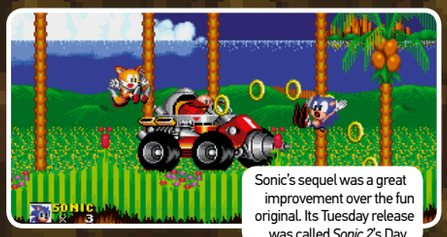
GAMES THAT DEFINED THE 90s

SUPER MARIO WORLD

YEAR RELEASED: 1990

It's rare that a console launches with a game that redefines a genre, but that's exactly what happened with *Super Mario World*. Nintendo's magic is in full force, showing off inventive level design, gorgeous looking cartoon visuals and plenty of cool new power-ups, including Mario's lovable sidekick, Yoshi. It's possibly the greatest game of all time.

We can't think of a single 2D platformer that's better than *Super Mario World*. It's an astonishing piece of work.



Sonic's sequel was a great improvement over the fun original. Its Tuesday release was called *Sonic 2*'s Day.

SONIC THE HEDGEHOG 2

YEAR RELEASED: 1992

Sega's sequel hit the ground running and delivered everything you'd want from a second *Sonic* game. Sonic was now joined by buddy Miles 'Tails' Prower, enabling gamers to race through a stage against a friend, while the graphics and level design were greatly improved. The new bonus stage was a thing of beauty as well.

SENSIBLE WORLD OF SOCCER

YEAR RELEASED: 1994

Although the gaming world was obsessed with 3D, titles like *Sensible World Of Soccer* (or *SWOS* as it was affectionately known) proved that systems like the Amiga were still a force to be reckoned with. It remains a fantastic top-down football game that's deceptively easy to learn, but incredibly difficult to master.

Sensible World Of Soccer still feels as good to play today as it did all the way back in 1994

STREET FIGHTER II: THE WORLD WARRIOR

YEAR RELEASED: 1991

Capcom's sequel improved on the original in every way. There were now eight distinctive fighters to choose, special moves were far easier to execute and combos allowed clever players to string together powerful move sets. It reignited the genre virtually overnight.

Street Fighter II shook up the genre. Its release led to a string of copycat clones, of which many were terrible.

DOOM

YEAR RELEASED: 1993

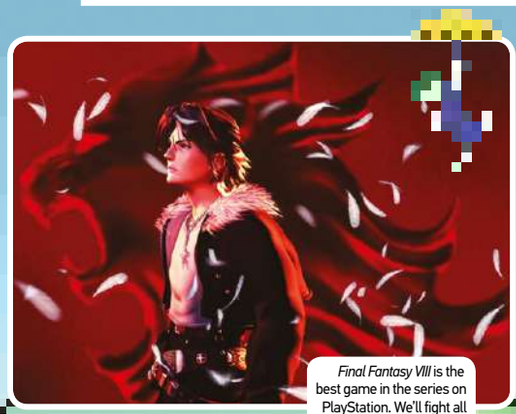
Id Software's first-person shooter was an incredible achievement, massively building on the gameplay mechanics of *Wolfenstein 3D* and pushing PCs to breaking point due to the graphical processing power needed. Even today, playing *Doom* is an intense, visceral experience with some of the most satisfying weapons to be found in the genre.

Id's *Doom* remains an exceptionally polished game to play and still holds up exceptionally well.

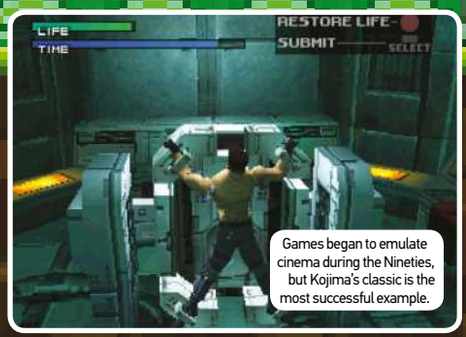
1999: THE RISE OF POKÉMON

It's astonishing to think that ten years after it was first released, the Game Boy brand was reinvigorated. That's exactly what happened with *Pokémon Red* & *Blue* however. Even though the games were released in Japan several years earlier, it wasn't until it reached the West (alongside a popular card game and anime series) that *Pokémon* fever truly took off. The game was an insane success for creators Game Freak and went on to sell over 31 million units, an impressive feat for a console in its tenth year of life.

SNK quickly followed up its Neo-Geo Pocket with a colour version designed to take on the Game Boy Color. Despite featuring some sensational games and the best joystick to be found on any portable system, it failed to take on Nintendo's machine and was eventually discontinued the following year. If things weren't looking great for SNK they were certainly picking up for Sega, as its Dreamcast was proving to be quite popular thanks to the likes of *Sonic Adventure*, *Shenmue* and staggering arcade conversions such as *The House Of The Dead 2*, *Soulcalibur* and *Marvel Vs Capcom: Clash Of Super Heroes*. Sony had a new console in the works as well, the PlayStation 2, but it wasn't due for release until 2000, giving plenty of time for Sega to get back into the game. Right? Of course we'd love to tell you what happened next, but unfortunately that's a tale to be told for another time…



Final Fantasy VIII is the best game in the series on PlayStation. We'll fight all those who say otherwise.



Games began to emulate cinema during the Nineties, but Kojima's classic is the most successful example.

METAL GEAR SOLID

YEAR RELEASED: 1998

Hideo Kojima's continuation of the *Metal Gear* series felt like a movie you could participate in. The characters were extremely well-voiced for the time, boss battles were incredibly inventive, while the set pieces were absolutely superb. It was an astonishing indication of just how far videogames had come.

Extreme sports games were absolutely everywhere in the Noughties, further proof of this game's importance.

TONY HAWK'S PRO SKATER

YEAR RELEASED: 1999

It may have falling on hard times in recent years, but this extreme sports game seemed to be everywhere at the end of the Nineties and led to a host of similar 'extreme' games. The design of each stage was astonishing, while fans of score-based games had plenty to sink their teeth into.

Final Fantasy VII is being remade, but will it be as good as the original? We'll have to wait and see.

FINAL FANTASY VII

YEAR RELEASED: 1997

Nintendo's loss of Squaresoft was the PlayStation's gain. The seventh *Final Fantasy* was a ridiculous success, and helped bring Japanese RPGs to the Western marketplace. It also features one of the most iconic death scenes of any videogame and is currently in the process of being remade for modern day consoles.

We've lost count of the hours we've spent playing *Worms*. It's a firm favourite to play in the Retro Gamer office

WORMS

YEAR RELEASED: 1995

Worms was another Amiga hit that proved you didn't need state of the art graphics or lifelike visuals to create a killer gaming experience – you just need great game mechanics. *Worms* had all that and more and its multiplayer mayhem caught on with gamers and gave Team 17 its most successful franchise of all time.

This screen is the beginning of a magical journey. Which *Pokémon* did you end up choosing to take with you?

POKÉMON RED & GREEN

YEAR RELEASED: 1996

Like many of the big games featured here, the *Pokémon* series is still running strong today. Inspired by his love of insect collecting as a child, Satoshi Tajiri wanted to create a game that a new generation of kids could take interest in. The gambit worked and his trading-based RPG went on to sell over 31 million units.

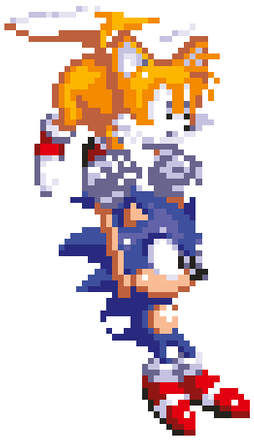
THE MAKING OF SONIC THE HEDGEHOG 2

IN 1992, SEGA TECHNICAL INSTITUTE WAS GIVEN THE TASK OF DELIVERING A NEW SONIC GAME, WITH A SHORTER SCHEDULE AND A TEAM DIVIDED BY LANGUAGE. NICK THORPE FINDS OUT HOW IT WAS PULLED IT OFF...

» Mystic Cave Zone is full of hidden traps, like these spiked platforms that emerge from the walls.

DID YOU KNOW?

The original plan for *Sonic 2* included the terrifyingly-named 'Genocide City Zone' – later renamed to 'Cyber City Zone'.



Instant success sure can be a curse as much as a blessing. That's why you hear so much about the 'difficult second album' or a 'sophomore slump' – it's tough to follow a breakout debut. *Sonic The Hedgehog* was most definitely a breakout success, propelling Sega from a minority player in the home console market right into competition with industry giant Nintendo. No matter how difficult it would be to create a successor, you'd imagine the company would be moving mountains to make sure it happened. So you might be surprised to find that the company had allowed one of the key staff behind the success of the game to walk away.

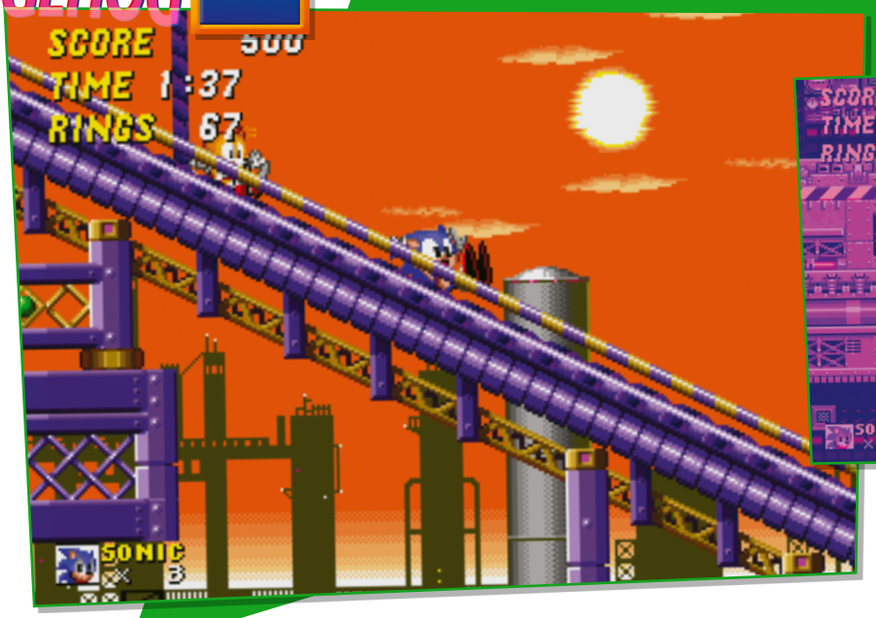
"In the year that I set up Sega Technical Institute, I was shuttling back and forth between the Silicon Valley home of STI and Sega headquarters in Tokyo," explains Mark Cerny, who was a programmer on *Sonic The Hedgehog 2*. "On one of these trips, I learned that Yuji Naka, who was the programmer and overall driving force beyond the first *Sonic The Hedgehog*, had quit the company on completion of the project. This was quite a bit of a shock. Naka-san was brilliant, and had spearheaded any number of consumer hits, everything from arcade conversions like *Out Run* to original titles such as *Phantasy Star*. He was as much of a star in the Sega universe as Yu Suzuki."

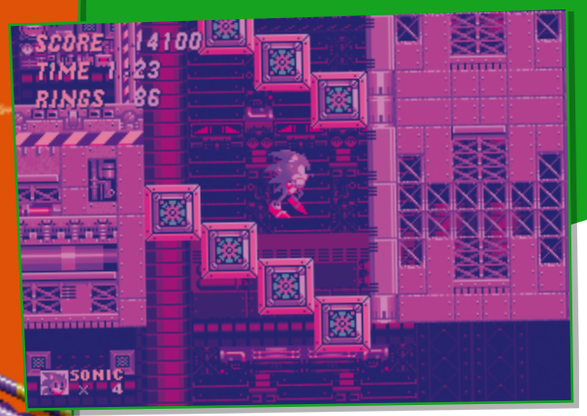
» Casino Night Zone's pinball action was popular enough to inspire the spin-off *Sonic Spinball*.

Mark wasn't about to let such a talented colleague disappear from the company and set about rerecruiting him. "It wasn't difficult at all to track down Naka-san, as I'd worked out of the same bullpen in Tokyo as he did for several years. His story was pretty simple: low pay, long hours, lack of appreciation and support from management. The pay issue was also quite simple: as an employee of the Tokyo headquarters, salary was based on seniority, and royalties did not exist." Still, this was something that Mark saw as an opportunity. "My pitch was that if he'd come to STI in the USA, we could compensate him much better. We didn't make any decisions as to what the next game would be, just that this time around, if he had a smash hit he would share financially in its success." The incentive worked, and Yuji Naka made the trip across the Pacific to join Mark's team. This allowed him to reunite with Hirokazu Yasuhara, the game designer on the original *Sonic The Hedgehog*, who had also moved from Japan to join Sega Technical Institute.

With two key members of the original team at the studio, the sequel project began. "We at STI were under the impression that *Sonic 2* was the obvious game to make," explains Mark. "So we pitched it as a 1992 holiday release, which would give us something like 11 months to do the game creation… and were told dismissively that 'it's much too soon' by one of the marketing execs." Apparently, this wasn't an uncommon problem. "It was frequently ▶

SONIC THE HEDGEHOG 2





» Chemical Plant Zone was originally a late-game stage, which is why it's relatively difficult.

"AT THE VERY BEGINNING, I DESIGNED THE GAME WITH 'BLUE SKY' IDEAS"

Hirokazu Yasuhara

DID YOU KNOW?

Sonic Mania's Mirage Saloon Zone is inspired by a mocked-up desert stage seen in early *Sonic 2* images.

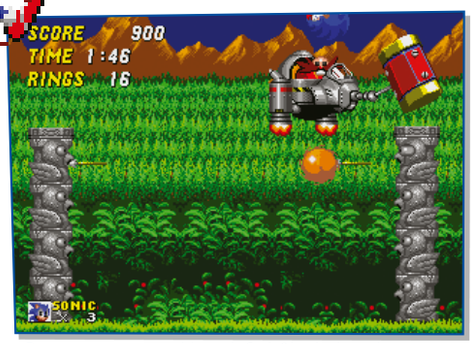
▶ difficult to understand the relationship between the marketing team and the product development team," Mark continues. "For example, I can recall the same marketing exec dictating to the studio head exactly what game lineup to create – and yet, that plan only allowed for a five-month development cycle of some of the titles. Completely unrealistic, but that didn't stop the marketing exec from criticising the studio head as being 'uncooperative'."

This astonishing decision allowed the team to work on other concepts, and enabled Yasuhara to start dreaming big for Sonic's eventual return. "At the very beginning of the project, I designed the game with 'blue sky' ideas. When I made the original design, I thought we had about two years for the project," explains the designer. In recent years, he has shown off some of these ideas, including an ambitious time travel plot in which Robotnik takes over the world and Sonic must journey to the past to stop him – a concept which would later be explored in *Sonic CD*, which was developed by an entirely different team. "But after starting the project, the company forced us to change our schedule," the designer continues.

"Two months later, we were told that yes, we did need to create *Sonic 2* for 1992 holiday release," recalls Mark. "It wasn't much of a creative loss, in that we'd spent that time trying and failing to come up with a game concept as compelling as *Sonic*. But it did mean that instead of 11 months to create the game, we would only have nine months." It was a very high-profile project for a team that had only shipped two games previously. "It was very exciting. Actually, more like beyond exciting," remembers Craig Stitt, a level artist on *Sonic The Hedgehog 2*. "Surprisingly I don't remember feeling intimidated by it. Probably due to the fact I was young, naive. There was also a certain amount of confidence working with Mark Cerny, plus we had Yasuhara and Naka." While Craig wasn't feeling the pressure, the team was most definitely aware of the importance of the project. According to Yasuhara, "Sega was fighting against Nintendo with a 16-bit console battle at the time, so our team members understood that we were under big expectation from the market and Sega executives."

The team had a number of ideas of how to improve the game over the original. For a start, Sonic needed to be even faster. In the first game, his running speed was capped well below the maximum speed he could achieve – that would be lifted in the sequel. He'd also get a new move to help with this. "Almost all team members had naturally felt that Sonic needed the 'spin dash' after the release of the original *Sonic*," says Yasuhara. By crouching and pressing jump, the player would send Sonic into a spin, while still fixed in place. This could be further revved up by hitting jump again, and once the buttons were released Sonic would spin off in the direction he was facing, meaning that he didn't have to backtrack for momentum in order to tackle steep hills as in the previous game.

Another major addition to the game was the addition of multiplayer. According to Yasuhara, this was always part of the plan. "I wanted to give a friend for Sonic. So I implicitly imagined that *Sonic 2* would have two characters in it," explains Yasuhara. "If there were two characters in game, brothers and sisters could play at the same time." This character eventually developed as Miles 'Tails' Prower, a little fox. In regular gameplay, Tails worked under CPU control, with an AI routine that had him mimic Sonic's moves and attempt ▶



» Boss structures are more elaborate in *Sonic 2*, but they're rarely very challenging.

CRUNCH TIME

Thanks to the prototypes that have leaked out of Sega over the years, we can see exactly how the last couple of weeks of development played out…

18 SEPTEMBER 1992, 2:26PM

- At this point the game is using a prototype title screen illustration.
- **All stages are implemented and ground layouts are complete.**
- Hidden Palace Zone and Wood Zone have had their stage graphics removed.
- **Sonic will die if he hits spikes during his post-damage invincibility.**

Who got through act 2? Hint: he's not a blue hedgehog. Fix it.

21 SEPTEMBER 1992, 10:06AM

- The finalised title screen is added to the game.
- **Emerald Hill Zone is made easier by adding rings and moving enemies.**
- Aquatic Ruin Zone is made easier by adding rings and deleting enemies.
- **Casino Night Zone's slot machines gain reward/penalty coding.**
- Mystic Cave Zone's object placement receives some minor adjustments.
- **Oil Ocean Zone's boss arena is broken (Sonic falls straight through oil).**
- Death Egg Zone boss is made harder.
- **Hidden Palace Zone's remaining enemy graphics and code are deleted.**
- Spike behaviour is corrected.
- **The Super Sonic transformation sequence is added to the game.**
- Special Stages 1-5 and 7 receive new some object layouts.
- **A rough version of Sonic's end sequence is added to the game.**

Get Sonic to pilot the plane. We don't do animal cloning.

22 SEPTEMBER 1992, 4:47PM

- A trademark symbol is added to the game's title screen.
- **Aquatic Ruin Zone's layout is tweaked by moving pillars and changing the moving platforms around.**
- Hill Top Zone's layout is tweaked by moving rings and enemies.
- **Wing Fortress Zone is made easier by adding rings and moving items.**
- Wing Fortress Zone's boss is made easier (laser no longer destroys platforms).
- **Super Sonic's transformation sequence is corrected to check for Chaos Emeralds.**
- Ring requirements for Special Stages 2, 4 and 5 are decreased for Sonic and Tails.
- **Special stages are recoloured.**
- The staff credits sequence is added to the game's conclusion.

24 SEPTEMBER 1992, 5:27PM

- Oil Ocean Zone gains spikes beneath oil slides to fix a bug that causes Sonic to slide.
- **Metropolis Zone gains spikes above screw paths to fix a bug that embeds Sonic in the wall.**
- Wing Fortress Zone cutscene bug is fixed (Super Sonic no longer jumps to his death).
- **The invincibility sparkle effect is replaced with a new one.**
- Code is added to make Sonic/Tails lose their shields after passing an end of level signpost.
- **Tails gets his own continue icon.**
- Tails' ending is added to the game.
- **A bug is added to Super Sonic's ending, resulting in corrupted graphics.**
- Extra names are added to the staff credits.

24 SEPTEMBER 1992, 7:25AM

- The finalised level select screen is added to the game.
- **Oil Ocean Zone gains spikes in various places to ensure players use pressure cannons.**
- Oil Ocean Zone's boss arena is fixed.
- **Metropolis Zone is made easier by adding extra checkpoints.**
- Metropolis Zone now sends players to Sky Chase Zone after Act 3, rather than Act 2.
- **Sky Chase Zone now features Sonic as the biplane pilot in Tails-only mode.**
- Death Egg Zone now properly clears checkpoint data, removing a frustrating instant death bug.
- **End-of-level graphics no longer mistakenly calls Tails 'Sonic'.**
- Super Sonic's ending graphics are added to the game.

25 SEPTEMBER 1992, 11:00PM

- New attract mode demos are recorded and added to the game.
- **The game is made harder by converting many extra lives to other items.**
- Casino Night Zone's flippers and Crawl enemies are moved to avoid crash bugs.
- **Oil Ocean Zone gains even more spikes to ensure players use pressure cannons.**
- Wing Fortress Zone is made harder by removing rings.
- **Death Egg Zone boss spawn point is moved to the far right of the stage.**
- Super Sonic's underwater colours are fixed.
- **Code is added to revert Super Sonic back to his normal form after passing an end of level signpost.**
- Special Stage 6 receives a new object layout.
- **Ring requirements for Special Stages 5 and 7 are increased for Sonic and Tails.**
- Ring requirements for Special Stages 3-7 are increased for Sonic or Tails alone.
- **Super Sonic's ending is fixed.**

Game is finalised and sent for production!

Does this feel a bit unfair? Maybe make it easier, guys.

29 SEPTEMBER 1992, 9:33AM

- The end post in Casino Night Zone is raised by a few pixels.
- **Ring monitors no longer cause the ring counter to glitch by ignoring the 999 ring cap.**
- Fixed bugs relating to interacting with certain objects while hurt.
- **Fixed a graphical glitch when using Teleport in 2P mode.**
- The spelling of Thomas Kalinske is corrected in the staff credits.

Game is sent out for production as Revision 01!

Who broke the end sequence? Put Sonic in the centre please!

SONIC THE HEDGEHOG 2

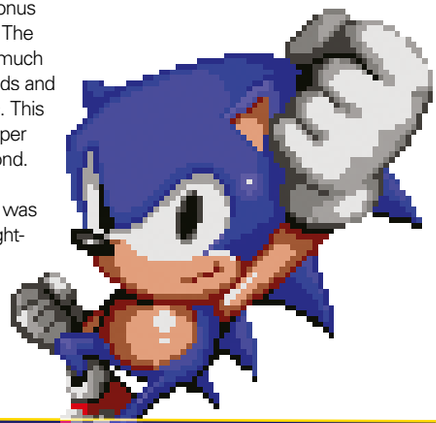
Did you know?

▶ to catch up if he fell behind. However, a second player could grab a pad at any time to take control of Tails, giving little brothers and sisters the world over an invincible helper character with which to get involved.

Co-op wasn't Tails' only use. "Naka-san pulled off some technical magic and created a split-screen racing mode which turned out extremely well," recalls Mark. This used the Mega Drive's rarely seen interlaced mode to present a squashed but fully-detailed play area for both players, allowing them to compete across a limited selection of stages,with the winner determined across the best of three categories (fastest finish, most rings collected and most item monitors broken).

"We knew we needed a flashy bonus stage – and ended up creating a pseudo-3D dash down a half-pipe," explains Mark. This can largely be credited to Tim Skelly, who produced the 3D renders which gave the stage its rollercoaster feel, with additional graphics by Yasushi Yamaguchi and stage design by *Shinobi* director Yutaka Sugano. "Certainly, it was visually exciting, though I never could shake my feeling that the gameplay had been deeper in the rotating bonus stage in the first *Sonic* game," Mark confesses. The reward for beating all of the special stages was much more memorable – with all seven Chaos Emeralds and 50 rings, Sonic could transform into Super Sonic. This golden version of our hero gained permanent super speed and invincibility, but lost one ring per second.

Sonic 2 also needed to be bigger than its predecessor. Thankfully, in this regard, the team was given a big boost as it was allowed to use an eight-megabit cartridge, which was twice as large as that used in the original game. This primarily allowed for more variety – *Sonic 2* wasn't much longer than the original game, but it had more of everything, including animations,



ECHO BOOMS

The original Mega Drive game isn't the only way to play Sonic 2...

Like most of Sonic's early games, *Sonic 2* has had too many compilation and plug-and-play appearances to count. However, a few conversions have shown the hedgehog's second adventure a bit of extra love that might make them preferable to the original. The first is *Sonic Jam*, the *Sonic* compilation for the Saturn which includes his four Mega Drive outings. As well as allowing you to play the locked-on *Sonic 2 & Knuckles*, this game offers revised Easy and Normal difficulty modes in addition to the original game's layout. Time Trial and Chaos Emerald modes have also been added.

Sonic 2 for iOS and Android, released in 2013, was ported from the ground up by Christian Whitehead and Simon Thomley. The game has new support for widescreen displays, achievements, and Knuckles included as standard. The biggest new feature in the game is an extra hidden stage – an exclusive finished version of Hidden Palace, with new graphics, new enemy attacks and a custom boss that actually ranks as one of the best in the game.

Lastly, M2 developed 3D *Sonic The Hedgehog 2* for Nintendo's 3DS in 2014. This emulation adds a Ring Saver mode, which gives you ten free rings and lets you keep half of your rings whenever you get hit. Additionally, an unlockable Super Sonic mode lets you skip the special stages. The biggest addition here, however, is stereoscopic 3D, adding depth to the backgrounds that would be impossible to display on other systems.

» Item boxes give random items in multiplayer mode – and sometimes, even negative ones.

"TO BE HONEST, WE HAD GOOD TIMES, AND A LOT OF NOT SO GOOD TIMES"

Craig Stitt

enemies and even music. This was once again provided by Masato Nakamura, the composer of the original game's music and the bassist for the popular Japanese band Dreams Come True. The game's music was being written at the same time as *The Swinging Star* – an album which would set the record bestselling Japanese album. You can hear this in *Sonic 2*'s ending theme and the song *Sweet Sweet Sweet*, which both use the same melody.

Compared with the original game, almost twice as many unique stage themes were featured in *Sonic 2*. These were lifted straight from the time travel plot, but shorn of context – Hill Top Zone's dinosaur enemies make a lot more sense when you learn that it was meant to take place in the ancient past, and Chemical Plant Zone definitely would have fit a future in which Robotnik had taken over the world. Casino Night Zone also came from that 'bad future' concept and was a real standout, thanks to its slot machine and pinball mechanics. "The high concept of *Sonic* is 'speed'," explains Yasuhara. "When I used spring gimmicks in *Sonic*, I noticed they were similar to pinball tables and flipper gimmicks." Similarly, the gameplay changed in Sky Chase Zone, which saw Sonic riding the wings of a biplane on the way to Robotnik's Wing Fortress. "I guess the idea of Sky Chase Zone was inspired by Hayao Miyazaki's anime movie *Future Boy Conan*," Yasuhara tells us.

With all the extra content required, the creation of *Sonic 2* naturally involved many more staff than the original game. However, due to the circumstances at Sega Technical Institute, both Japanese and American developers were involved. "The original plan had involved about a dozen members of the Tokyo game development team forming the backbone of the STI organization, but Sega headquarters fumbled the immigration process and all visas were denied," reveals Mark. "Sega had actually applied for O-1 expert visas for the team – these are for 'nationally or internationally recognised' individuals with 'a record of extraordinary achievement.' So Naka-san would (and did later) qualify for one of these, but not the 23-year old artist they wanted to send over. Sega was actually blacklisted by the American embassy in Tokyo for a while after this!"

As a result, the studio was primarily staffed by American developers prior to *Sonic 2*. "While that was fine for the projects such as *Dick Tracy* or *Kid Chameleon*, it created challenges when trying to create a game that needed to hit the quality level of *Sonic 2*," says Mark. "This was made worse by language issues and cultural issues. The Japanese and American staff could barely talk to each other, and though I was hoping a mentor/mentee relationship would develop between the more senior Japanese members and junior American members, it never happened."

"To be honest, we had good times, and a lot of not so good times. I don't think there was a lot of 'learning' going on for the most part," says Craig of the mixed team. "Yasuhara was an easy person to work with and I never felt he looked down on the Americans on the team. Yamaguchi was also easy to work with. On the other hand, Naka was an arrogant pain in the ass. He had no interest in working with any of the Americans."

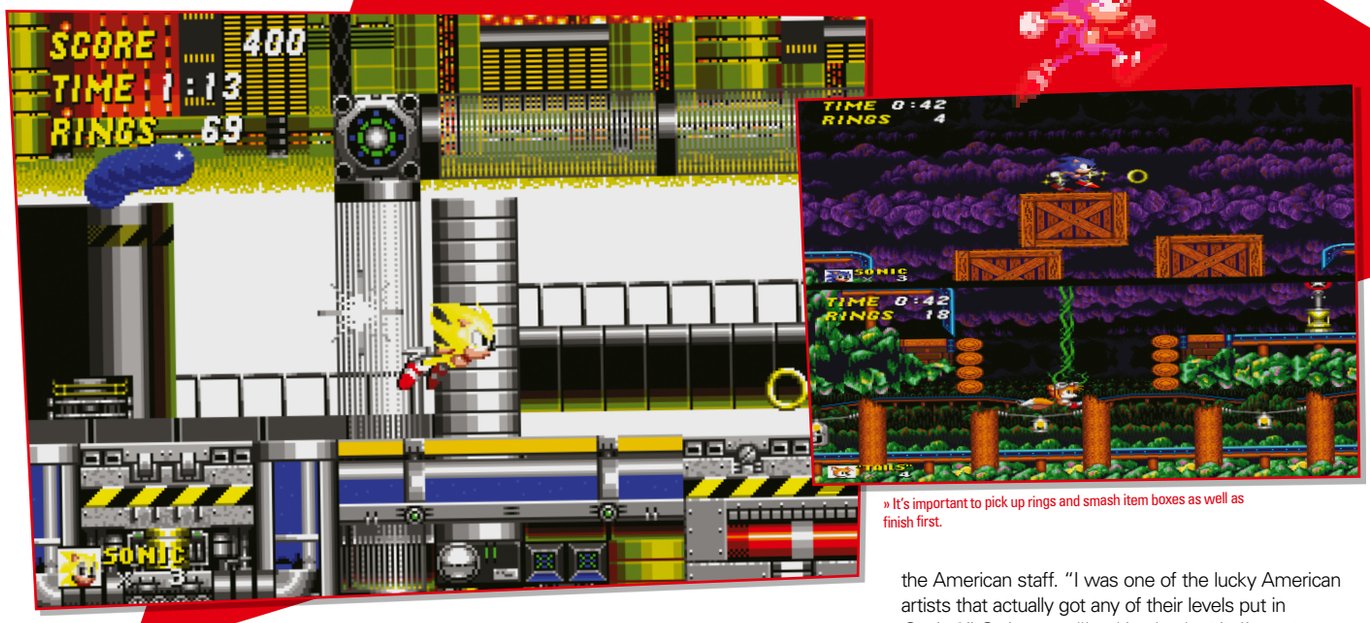
"I remember that the most difficult issue was unification of art style," says Yasuhara. "Lead artist Yasushi Yamaguchi tried to check all of his teammates' art styles of stages and enemies at the same time, while drawing his own stages, enemy designs and animations. The original team member Jina Ishiwatari also came to help his work, but Yasushi still didn't have enough time to sleep." This is an issue that Craig also recalls. "There were a *lot* of problems meshing the art from the American artists with Yamaguchi's," the artist confirms. "Not only was Yamaguchi's art ▶

» The popular half-pipe special stage has been frequently reused throughout the *Sonic* series.

DID YOU KNOW?

Sonic 2's cheat codes refer to dates – the level select is Yuji Naka's birthday and the debug mode is Sonic 2's birthday.

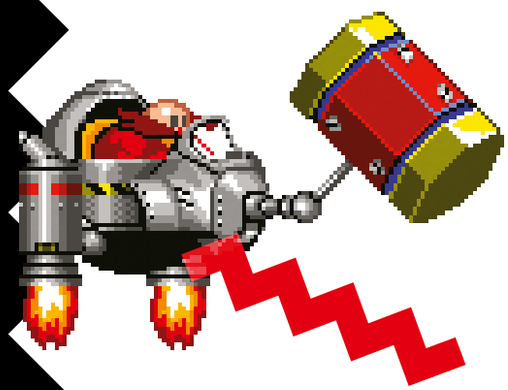
SONIC THE HEDGEHOG 2



» It's important to pick up rings and smash item boxes as well as finish first.

"I REMEMBER A LOT OF ANGRY ARTISTS FINDING OUT THEIR LEVELS HAD BEEN CUT"

Craig Stitt



incredible, he was a machine. He worked incredible hours and reworked and perfected his levels over and over again. I think the one that went to through the most changes (that I remember) was Chemical Plant Zone. I would come in one day and it would be beautiful… then come in the next day and it would be completely different and even more beautiful."

Craig's work wasn't immune to this problem. "Besides the infamous Hidden Palace Zone, I also did Oil Ocean Zone," he explains. "With Oil Ocean, if I remember right, Yamaguchi came in and redid the distant background. That kind of hurt, but I couldn't argue because I didn't like what I had come up with." This problem also reared its head with Craig's other stage. "The same is true with Hidden Palace. The foreground art is still some of my favourite, and I think fits in the *Sonic* universe beautifully, but the background… I *hate* and was never happy with. I was hoping Yamaguchi would be able to rework it as well, but that never happened." Despite being one of the first stages implemented in *Sonic 2*, Hidden Palace Zone was ultimately dropped due to time constraints.

In fact, that's one of the most notable things about *Sonic 2* – despite the short development time, a huge amount of the content created for the game never made it in. "There was a *lot* of wasted/unused art in *Sonic 2*, more so than any other game I've worked on… at least for any game that actually shipped," Craig recalls. "I remember a lot of angry artists finding out their levels had been cut. I was among those when I found out Hidden Palace had been cut… well, sort of cut." As it turns out, the brunt of the cuts were made to the work of the American staff. "I was one of the lucky American artists that actually got any of their levels put in *Sonic 2*," Craig says. "Looking back at it, I'm not sure if I wasn't the *only* American to end up with any levels in *Sonic 2*…"

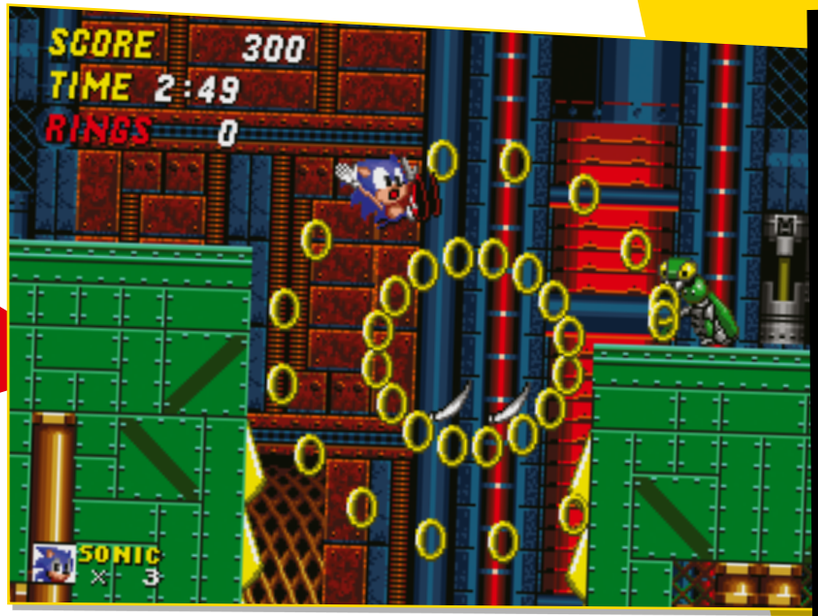
Part of the problem, according to Yasuhara, was that there simply wasn't enough time to implement everything in the game in the nine month development period. "At the development time, we didn't have enough time to sleep. I just dived and lived in the *Sonic 2* world," explains the game designer. "I did choose some new gimmick ideas to drop off, but the underlying reason was always because development time was short." Were there any ideas that he was sad to lose? "All of them," he responds. "If I can, I'd like to make my original version of *Sonic 2*."

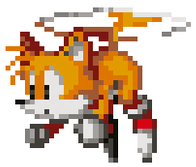
Development continued at a frantic pace right up until the deadline, with bugs being squashed left and right, presentational polish being added and difficulty being adjusted. *Sonic 2* only actually became playable from start to finish within the last 48 hours before the first retail-ready build of the game, and even that build had enough problems that it was only used for the earliest cartridges, with a revised ROM built a few days later.

Sega made a major event of *Sonic 2*'s release. The hype machine had started up early in 1992 with a few mocked-up screens based on the existing art assets. In the summer, a special prototype version had been sent to Nickelodeon to feature on the show *Nick Arcade*, where *Clarissa Explains It All* star Melissa Joan Hart memorably struggled to get to grips with the game. All sorts of promotional items were sent to retailers, including dry-erase boards to count down to the release date and T-shirts to give away as preorder gifts. A holographic cartridge label was even considered, but ultimately scrapped due to cost.

However, the biggest deal was the near-simultaneous worldwide release of the game – a true rarity in that era. It was a massive undertaking, with air freight required to get the game to all retailers on time. Even this was celebrated – Sega Of America produced stickers commemorating "The Great *Sonic 2* Shipment" with Emery Worldwide, while 50 Sonics

DID YOU KNOW?

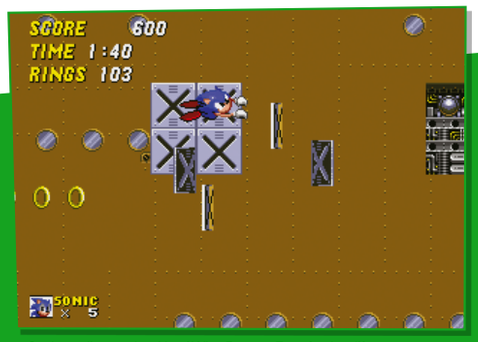




greeted the three chartered planes carrying copies of the game at Heathrow Airport. Japan received the game on 21 November 1992, while North America and Europe received it on 24 November 1992 – a date Sega referred to as "Sonic 2sday," and one conveniently placed just in time for Thanksgiving and the run up to Christmas.

When it came time for review, *Sonic 2* dazzled the critics. *Sega Power*'s 89% score was the low end of the consensus, with Dean Mortlock commenting that, "*Sonic 2* is effectively how the first *Sonic* should have been done." *Sega Zone* awarded the game 92% and *Mega Drive Advanced Gaming* gave 93%. *Mega, Sega Pro* and *CVG* all landed on 94%, with *CVG*'s Paul Anglin commenting that, "The levels are absolutely massive, with so much to do and so much to find that you'll bust a gut trying!" *MegaTech* went one per cent higher with 95% and *Mean Machines Sega* one point higher still with 96%. At the top, *Sega Force*'s reviewers gave *Sonic 2* an astonishing 97%, with reviewer Chris Knight saying that the game had "the kind of graphics and totally addictive gameplay most developers would kill for".

GamesMaster was the only major critical outlier – in fact, its 65% score for the game is the most memorable aspect of the magazine's first issue. The main bone of contention was the game's difficulty. "I managed to complete all the levels in one evening – using just one continue," commented writer Andy Lowe. "The first was dead easy to complete and so is this. There's just no challenge involved in *Sonic 2*, so it becomes a bore and a real let down," added Les Ellis. Other critics were split on the issue. In *Mean Machines Sega*, Julian Rignall assessed the game as being, "Much, much tougher than the original. ▶



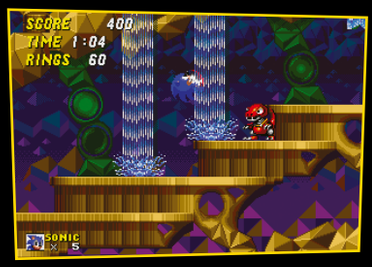
» Our hero clings to the side of Wing Fortress Zone for dear life as parts peel off in the high winds.

RAIDERS OF THE LOST ART

Sonic 2 generated a legendary amount of unused stages, enemies and animations – here's a selection

HIDDEN PALACE ZONE

■ This area was meant to play a pivotal role in the original plot, and was one of the first stages added to the game. Nothing was added to the in-game version after the summer of 1992.

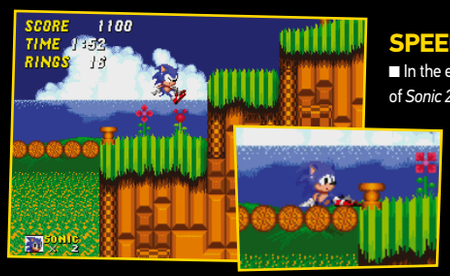


WOOD ZONE

■ As far as we can tell, this dense forest stage didn't make it too far before being scrapped – it only features in one prototype build, featuring no enemies and slightly broken collision.

CASINO NIGHT ZONE

■ The pinball-style stage originally sported a drastically different look, based around neon colours and card suits. It would ultimately be completely redrawn.



SPEED BUMP

■ In the earliest leaked build of *Sonic 2*, the blue hedgehog would actually be hurt if he stumbled into it at high speed! Imagine if that made it into the final game...

TITLE SCREEN

■ The original title screen for *Sonic 2* was similar to that of the first game, featuring the first stage's scrolling background. This title logo did appear in the 8-bit versions of *Sonic 2*.

OTHER SPRITES

■ Lots of enemies and items also went unused...

SONIC THE HEDGEHOG 2

TAILS, YOU WIN

We examine Sonic's foxy friend and his own star turns

Designed by Yasushi Yamaguchi as the companion that *Sonic 2*'s two-player design required, Tails has become one of Sonic's most iconic friends. As the story would have it, young Miles Prower was a bit of an outcast amongst his peers due to the unique twin tails that gave him his nickname, and he started following Sonic around to become as cool as his self-assured hero. This was something Sonic came to accept, even when Tails followed him into battle against Robotnik.

In the 25 years since his debut, Tails has become known as the clever and rational gadget expert amongst Sonic's friends. His most famous ability is flight, achieved by spinning his tails around at high speed in helicopter fashion. However, while this ability is shown in *Sonic 2* when Tails tries to catch up to Sonic, a player-controlled version of this trait wasn't introduced until later *Sonic* games.

Despite being a bit of a pest (particularly when he'd lose your rings in the Special Stage), Tails became one of Sonic's best-loved companions, remaining present even during a recent push to de-emphasise Sonic's ever-expanding entourage. What's more, he's starred in more spin-off games than any other *Sonic* character.

TAILS AND THE MUSIC MAKER

SEGA PICO

■ The sidekick's first starring role was in an edutainment game for Sega's oft-forgotten kids' console. Children should be able to learn about basic musical concepts and instruments, with some light platforming and pinball action thrown in to keep things on-theme.

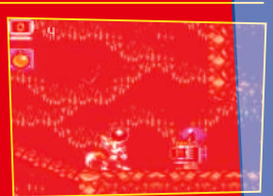
TAILS' SKY PATROL

GAME GEAR

■ Originally exclusive to Japan, this shoot-'em-up has since appeared on many compilations. Tails must defeat the evil Witchcart, who turns her foes into crystals with magic. Don't let the cutesy graphics fool you – this is a game which will have you tearing your hair out in frustration.

TAILS ADVENTURES

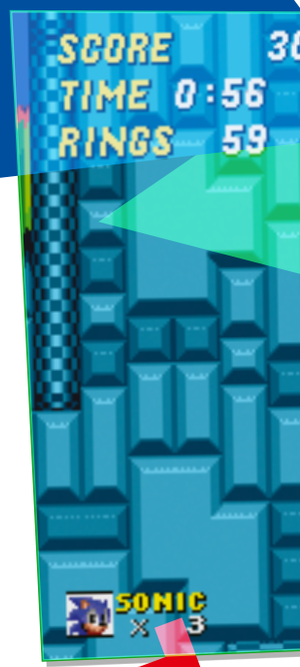
GAME GEAR



■ This platform game is easily the best effort in Tails' solo career. Trading speed for smarts, the game has a heavier puzzle emphasis than Sonic's platform games. Tails has to use bombs to attack, and a variety of gadgets are required to complete stages and defeat the Battle Kukku army.

"I HAD THE FEELING THAT SONIC IN THE SCREEN WAS REAL DURING DEVELOPMENT"

Hirokazu Yasuhara



There's no way even *Sonic* experts could call this easy!" Contrasting this view was *CVG*'s Tim Boone, who felt that only limited improvement had been made stating, "Initially it's not that much harder than the first game, but things do improve on later stages." In *Mega*, Neil West felt, "*Sonic*'s only Achilles heel is the lack of real challenge."

Concerns over the game's difficulty didn't stop players from rushing out to buy *Sonic 2*. Over 6 million copies of the game were sold, putting it behind only the original game as the second-best selling Mega Drive game of all time. A sequel soon went into production, but the unique mix of Japanese and American staff would definitely not be repeated. "While I felt, as a whole, we had worked well together (and I may be biased because my art made it into the game), it was clear that Naka did *not* feel the same way," explains Craig. "At one point I was told that for *Sonic 3* I would be the senior artist (you can imagine how excited I was at the prospect of that!). But Naka said that he refused to do *Sonic 3* unless he had an entirely Japanese team. Not only that, he wanted a separate set of offices for 'his' team with their own keycards so no one else at Sega Technical Institute could come into their office." Craig and the other

» In Sky Chase Zone, Sonic and Tails track Robotnik's heavily defended airship in a tiny biplane.

» Hill Top Zone was originally set in the past, explaining the presence of this dinosaur-themed foe.

» Before the final boss, Sonic must confront a deadly robotic doppelganger.

American staff would instead go on to work on the spin-off *Sonic Spinball*.

Mark had already moved on from Sega by that point, but had also caught wind of the split between Japanese and American staff at Sega Technical Institute. "Ultimately, of course, it was my responsibility to foster these relationships, and I really regret that I didn't devote more time and attention to bridging the cultural divide," he laments. For Yasuhara, who stayed on to work on *Sonic 3*, it was a good idea executed in the wrong environment. "I think trying to establish a multicultural team was meaningful, but it should not be done for a project with a very tight schedule," explains the designer, who would ultimately stay in the USA for the majority of his career.

Despite the discord, there's no denying what the team accomplished. *Sonic 2* was a huge sales success and is considered a true classic. When **Retro Gamer** readers voted on the top 150 games of all time in 2015, it reached 14th place, higher than any other game in the Sonic series. With that in mind, we asked the staff why they thought *Sonic 2* surpassed the original.

"Certainly, that's flattering to hear, but I don't have much of an explanation," says Mark, who isn't actually so sure that the sequel was better. "With *Crash Bandicoot*, or even *Uncharted*, the sequels were definitely better than the first titles. You could call it 'growing pains' – the first games had many missteps, and much was learned that could be applied to the sequels. But *Sonic The Hedgehog* wasn't like that, it was simply magical. I remember the first time I played *Sonic*, it was fresh and fun and beautiful. I think my favourite moment was the rising water sequence, it was a near-perfect blend of technology, art and animation. So I guess my opinion differs. Still, *Sonic 2* was a very nice game and I'm grateful to have been able to be part of its creation."

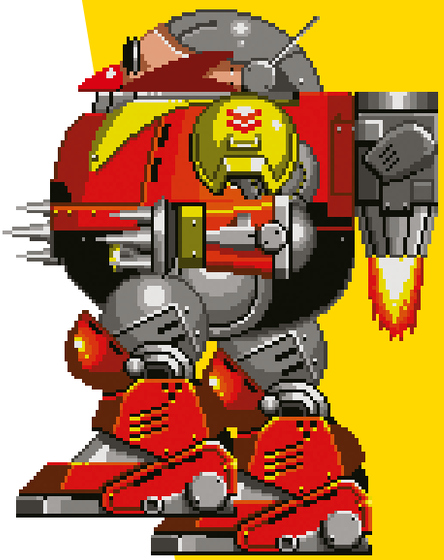
For Craig, it comes down to how the pressures of game development limit first-time developments, something he would later experience with his own platform game hero. "I've found with many games, the second game is better than the first," explains the artist. "Kind of regardless of how good the first game is, the second is a little (or a lot) better. I believe the reason for this is because the second game is actually the game the developers *wanted* to make the first time, but didn't have time or the technology. I found this to be true with *Spyro The Dragon*. Most of the cool things in *Spyro 2* we wanted to have in the original *Spyro The Dragon* but ran out of time (like Spyro being able to swim)," he continues. "Little things get added in the second game that really add a lot to the gameplay (like Sonic's spin-dash) and the look of the game is finally solidified."

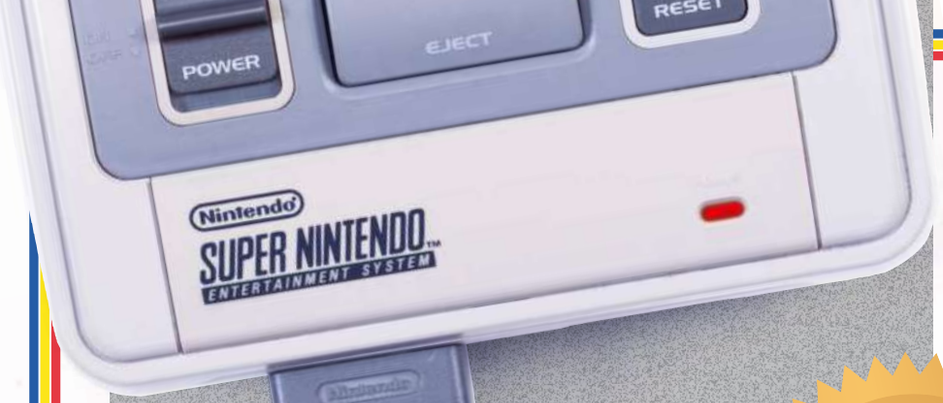
But for Yasuhara, the ongoing popularity of the game brings to mind a surreal experience during development. "I had sometimes gotten the feeling that Sonic in the screen was living and real during game development. I had felt I needed to give him more stages and more gimmicks so as not to make him bored. Maybe it was the lack of sleep, but then again I think sometimes such a sort of calling comes when the character has 'magic' unintentionally," the designer recalls. "I think Sonic himself felt happy playing with you, and that's why you chose *Sonic 2* even after so many years." And maybe it's a bit sentimental of us, but we think back to the children we were when we first played *Sonic 2*, that's how we felt too. ✱

» Tails suffers a setback as Sonic speeds ahead in the two-player racing mode.

DID YOU KNOW?

The first hints of Dr Robotnik's original Japanese name 'Eggman' were seen here, as his name is painted on the side of the Wing Fortress.





TOP 25 SNES GAMES

retro GAMER READERS' CHOICE

Discover the greatest games for Nintendo's 16-bit console, as voted by the readers of **Retro Gamer**

SimCity

DEVELOPER: NINTENDO EAD
YEAR: 1991 **GENRE:** STRATEGY

25 **It may be** primarily remembered as a PC franchise but, with numerous changes and additions to this console port, it's little wonder so many of you cited it as a SNES favourite. Developed by Nintendo EAD rather than Maxis, this version has a distinct Japanese flavour and several beautiful Nintendo twists – seeing Bowser stomp through the city is up there with the greatest gaming moments. The team did a great job of making it work with a controller rather than a mouse, too.

ActRaiser

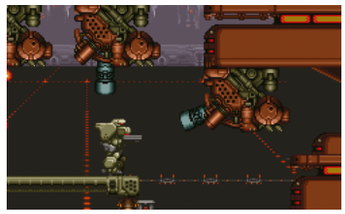
DEVELOPER: QUINTET
YEAR: 1990 **GENRE:** STRATEGY/ACTION

24 **The beauty of** *ActRaiser* is that it is effectively two games in one. Half god game – albeit without any direct religious references, thanks to Nintendo's hard-line self-censorship of the time – half action game, all awesome. While it's true that neither part is a dedicated example of the genres in question, it's the unique fusion that makes this so memorable. Putting town creation and management on hold to go kick some ass is something that no other game can offer.

Cybernator

DEVELOPER: NCS CORP
YEAR: 1992 **GENRE:** SHOOT-'EM-UP

23 **A surprisingly strong** showing in support of this shooter sees it make the list ahead of bona fide classics like *Super Punch-Out!*, but you've gotta love the underdog. It's an inventive mech shooter that really makes you feel like you're in control of a huge, complex piece of kit and it still holds up brilliantly today. The same can't be said of the budget PlayStation 2 remake, sadly – our advice would be to just stick with the original…



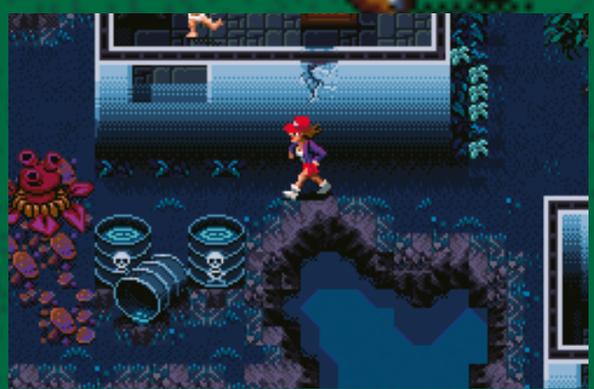
Zombies Ate My Neighbours

DEVELOPER: LUCASARTS
YEAR: 1993 **GENRE:** RUN-AND-GUN

22 **There's a lot** to be said for this B-movie shooter, so we're not overly surprised to see you come out in numbers to support it. The recent sad loss of LucasArts might have done something to bolster its following, but it's certainly not ill-deserved – the humour, style and tight gameplay are such that many modern developers would kill to put their name to something as polished and refined as this.

Perhaps the original great co-op game, *Zombies Ate My Neighbours* lets protagonists Zeke and Julie use anything they can find to hold off the zombie apocalypse and secure the safety of the guys and gals that live down the street. But it's not just zombies – variety here is exceptional and, over the course of the game, you'll find yourself gunning down pretty much every B-movie cliché – from giant ants to vampires and aliens. But it doesn't stop there, as the level with the gigantic rampaging baby perfectly displays. It keeps you guessing by constantly changing things up – even though gameplay changes little, that each stage can feel entirely unique is amazing.

Said variety extends beyond simply switching enemy sprites out for new ones, too. It's the weapons, an improvised arsenal comprising of everything from water pistols to rocket launchers. It's the settings, myriad slices of suburbia pulled straight out of every low-budget horror movie ever made. And it's the characters – even the titular neighbours come in all shapes and forms, with each of them worth a different amount of points if you can save them in time. Thankfully, you don't need to rescue them all but, the more you manage to free, the better your score will be. And just like most games in this genre, that's all that really matters.



"A great shooter with music to die for" gmintyfresh

Super Aleste

DEVELOPER: COMPILE
YEAR: 1992 **GENRE:** SHOOT-'EM-UP

20 **An excellent shooter,** as evidenced by the fact that it managed to beat the likes of *Super R-Type*, *Gradius III* and *UN Squadron*. A rich and varied arsenal is what really makes *Super Aleste* stand out, each of the eight weapons offering six different levels of power. Furthermore, each can be modified at the touch of a button, adding reverse fire (or similar area coverage) or changing properties to give options that can more or less cover every situation the game throws at you. Like pretty much every shooter, there's a problem in that death causes you to respawn with virtually no firepower – but there's a simple solution to that problem: just be better at the game. Solved.

EarthBound

DEVELOPER: APE/HAL LABORATORY
YEAR: 1994 **GENRE:** RPG

19 **It may not** have had a UK release, but that seems to have had little impact on the popularity of this glorious RPG. Perhaps offered a little more exposure thanks to Ness's appearance in *Super Smash Bros*, this quirky little title can take pride of place in any collection – mint originals now change hands for upwards of 500 quid. Why? It's one of the few retro classics not to have seen a re-release in any form, despite constant calls for it to come to Virtual Console. Still, all that is set to change now, as the cult RPG has finally been released on Nintendo's digital service. Let's see if that does anything to the insane price that original copies currently go for…

Donkey Kong Country 2: Diddy's Kong Quest

DEVELOPER: RARE
YEAR: 1995 **GENRE:** PLATFORMER

21 **If you could** all have just pulled together and decided amongst yourselves which *Donkey Kong Country* game was best, it could quite easily have made the top five. Instead, divided opinion gives us two *Kong* games in this list, Rare's platform sequel just missing out on the top 20. Quite how DK came to be kidnapped in the first place is a conversation for another time, though it's clear that Diddy and Dixie can handle themselves well enough without him. It was around this point that Rare's love affair with collectibles began, so those that have enjoyed cleaning up and finding everything in the likes of *Banjo-Kazooie* and *Star Fox Adventures* would do well to recognise where it all started.

Super Mario All-Stars

DEVELOPER: NINTENDO EAD
YEAR RELEASED: 1993 **GENRE:** PLATFORMER

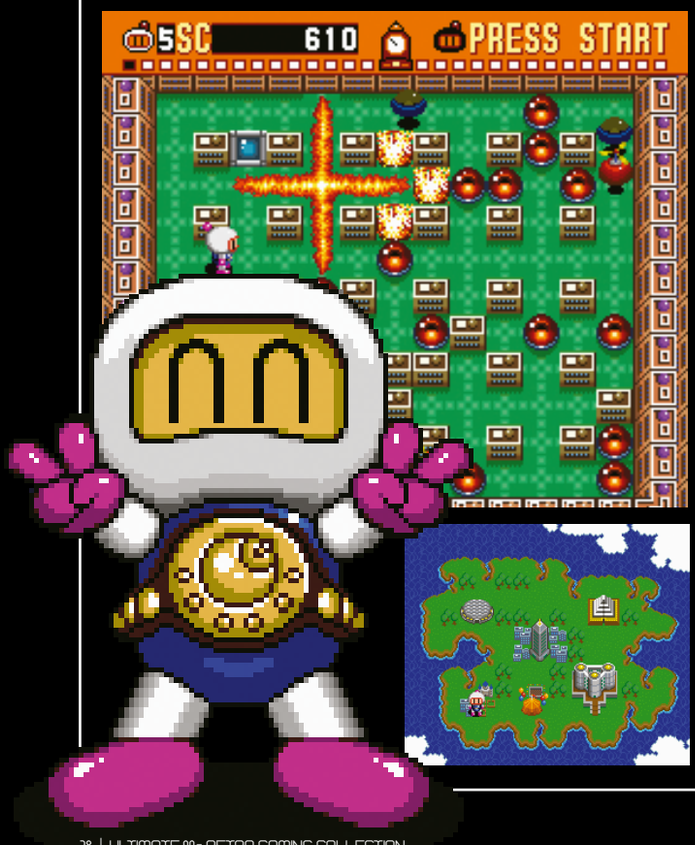
18 **A compilation and** console bundle title it may be, but far be it from that to exclude this collection of timeless games from your list. Sporting enhanced versions of the three NES *Mario* titles as well as super-tough variant *The Lost Levels* – famously *Super Mario Bros 2* in Japan, while we received a massively modified version of *Doki Doki Panic* – this is pretty much platforming heaven. Any one of the collected games would be worthy of a spot on this list alone, so the combination of all four is pretty much a shoo-in. You could buy a console and get by for months just on the single bundled game, which is not something that can be said of any console since. Later versions also included *Super Mario World*, which you can safely expect to read more about in the coming pages. Just a guess.

Super Tennis

DEVELOPER: TOKYO SHOSEKI
YEAR RELEASED: 1991 **GENRE:** SPORTS

17 **Early titles are** always going to live large in the hearts of fans – they're the ones that get the most play while you're waiting for the next big game, after all. We can all but assume that's why this 1991 title earned a spot on this list, although we'd struggle to point to an earlier multiplayer sports game that we got so much enjoyment out of. Making tennis quick and fun was a masterstroke, though even the points that dragged on proved to be hugely enjoyable – that's why we saw the same arcade template applied to *Smash Court Tennis* and, later, *Virtua Tennis*. We're all for simulation but, when it comes to a quick sporting thrill, we'd struggle to name many better games than this beauty. It sure as hell beats leaping around the lounge with a remote in your hand, that's for sure.

"I loved this game so much. Good single player, fantastic multiplayer and the best sports game for me"
Nemesis



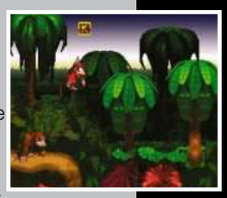
Super Bomberman

DEVELOPER: HUDSON SOFT
YEAR RELEASED: 1993 **GENRE:** ACTION

16 **Again, *Bomberman* would** be higher on this list if it weren't for the fact that gamers had no less than five different kinds of *Super* to consider in this case. Ignoring the fact that the console had just two controller ports, Konami elected to use an adorable multi-tap to allow for showdowns on a scale never before seen on console. Later games introduced more elements tailored to accommodate multiplayer massacres and, to be frank, we'd probably rather have seen one of these make the list than the simple original. However, there's a lot to be said for getting there first, and for all of you who voted for any of the superb sequels you can at least find solace in the fact that the little bobble-headed murderer managed to get onto the list at all. And we're glad he did – there are few better tests of pure gaming skill than a *Bomberman* face-off. Quite how this franchise wound up entertaining kart racers and sports games we'll never know – it remains one of the best and purest multiplayer experiences in the entirety of gaming.

Donkey Kong Country

DEVELOPER: RARE
YEAR: 1994 **GENRE:** PLATFORMER



15 **Poor old Retro.** As much as it tried its best to recapture the magic of the originals, in essence it's just not the same – the music, the design and the well judged level of difficulty were all nailed the first time around. A stunning effort by Rare.

Chrono Trigger

DEVELOPER: SQUARE
YEAR: 1995 **GENRE:** RPG

14 **As if this** time-hopping RPG classic wasn't going to make this list. *As if.* Any game that stars a noble frog warrior is one that we fully support, so we'll take any excuse we can get to celebrate this wonderful action-RPG from Square's archives.

Star Fox

DEVELOPER: NINTENDO EAD/ARGONAUT SOFTWARE **YEAR:** 1993
GENRE: SHOOT-'EM-UP

13 **This is more** than deserving of recognition for its introduction of useless gaming baggage Slippy Toad alone. It's just a shame that its pioneering 3D visuals will forever take a back seat due to the 'do a barrel roll' meme it spawned.

Final Fantasy VI

DEVELOPER: SQUARE
YEAR: 1994 **GENRE:** RPG

12 **Picking just one** of Square's 16-bit *Final Fantasy* games is a near-impossible choice, so well done for settling on this one. Echoes of *FFVI* can be felt in every canon game since, and its Uematsu soundtrack is enough to secure it a place on this rundown alone.

F-Zero

DEVELOPER: NINTENDO EAD
YEAR: 1990 **GENRE:** RACING

11 **Racing games are** boring? Yeah, nice try. A futuristic setting and amazing 3D visuals made this an unforgettable experience for everyone who played it, though it's saddening that we haven't seen a new version since the exceptional *GX* on GameCube.

"The only one in the series you need to play – best ever linear version of the game before it tried to copy *Metroid*"
davyK

Super Castlevania IV

DEVELOPER: KONAMI
YEAR RELEASED: 1991 **GENRE:** PLATFORMER

10 **Ask most people** which is their favourite *Castlevania* and, more often than not, you'll hear *Symphony Of The Night*. While the PlayStation game is a spectacular display of genre-straddling RPG action, there's a hardcore arcade purity to *Super Castlevania IV* that gives it the edge. The music, the bosses, the sheer variety… this is the stuff of legend and its reverence is far from ill-deserved. Action-platforming with a gothic slant, you could walk for miles and not find anyone who has gotten past the second level – *Dark Souls* and its ilk may claim to have created the hardcore sector, but we know better. *Castlevania* was there first. And if you can claim to have finished this, that's something that counts for a lot on your gaming CV – arcade coin-munchers have nothing on this beast.

Secret Of Mana

DEVELOPER: SQUARE
YEAR RELEASED: 1993 **GENRE:** ACTION-RPG

9 **There had to** be at least one Square RPG in the top ten and, with so many failing to get European releases, it stands to reason that this should be the one to make the cut. Three-player co-op was a unique selling point but, even without that, *Secret Of Mana* would still hold up brilliantly. This action-RPG managed to tick every box, from a unique leveling system to a great cast of characters that could be tailored to your own whim. Despite several sequels, this remains the best game in the series – the PlayStation sequel has its fans, but their numbers are feeble compared to those who would back the original. To this day, we've yet to see a truly great *Mana* follow-up and, while it's unlikely that we'll see one in this play-safe environment, it'd be a retro insta-win if Square announced a new *Mana* game tomorrow.

Pilotwings

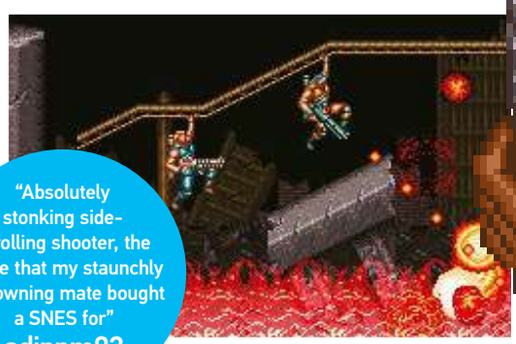
DEVELOPER: NINTENDO EAD
YEAR RELEASED: 1990 **GENRE:** FLIGHT SIMULATION

8 **Tech demos seem** to be the order of the day lately, with the likes of Wii Sports and Kinect Adventures capturing the imaginations of millions. But this beat all of them to the punch, a showcase for the unknown power of the SNES and an early glimpse at the magic of 3D. Few could have imagined that a flight game would be the one to show off what the SNES was truly capable of, but that's precisely what *Pilotwings* did. Three-dimensional gaming wouldn't become the norm until years later, but we can't forget who planted that seed – few did it better either, to be fair. In terms of offering a unique experience, few titles can rub shoulders with *Pilotwings*. Even the N64 and 3DS updates never really managed to recapture the magic of the original, fun as they may be.

Contra III: The Alien Wars

DEVELOPER: KONAMI
YEAR RELEASED: 1992 **GENRE:** RUN-AND-GUN

7 **Anyone that throws** their hardcore weight around based on recent accomplishments like finishing *Dark Souls* or *Super Meat Boy* would do well to pop back in time and give this monster a go. Whatever you choose to call it, this is pretty much the epitome of hardcore – dudes be coming from everywhere, and all of them will kill you in a single hit. *Contra* had lost its way recently until *Hard Corps* brought it back – it's rare that a sequel nails exactly what was so good about the original but that's what Arc managed to do. The original still presents an awesome challenge and one that anyone can be proud to have conquered. Pretty much the ultimate run-and-gun game, *Contra III* exists to kick the ass of anyone who tries to play it. As you probably know. If not, give it a shot today and don't even vaguely expect to win.



"Absolutely stonking side-scrolling shooter, the game that my staunchly MD owning mate bought a SNES for"
adippm82

Super Mario World 2: Yoshi's Island

DEVELOPER: NINTENDO EAD
YEAR RELEASED: 1995 **GENRE:** PLATFORMER

6 **We have to** be honest – we thought this classic platformer would come in a little higher. But with *Super Mario World* stealing the majority of the vote, we guess it was a 'one or the other' mindset in most cases. Either way, this dino-themed sequel performed admirably and, while we wouldn't want to have to make a pitch as to which was the better game, the egg-tossing love this game has received pretty much does that for us. Platform games don't come much better than this, especially when they don't involve the bugs or bandicoots that have come to define the genre.

Super Metroid

DEVELOPER: NINTENDO R&D1/INTELLIGENT SYSTEMS
YEAR RELEASED: 1994 **GENRE:** ACTION/ ADVENTURE

5 **Few games have** laid out their stalls quite so well as this. *Super Metroid* basically doesn't say a word, but it doesn't need to. If anything, that's the joy of it – the mystery is what keeps you playing and, even when you know what you're doing, this is not an easy world to explore. Setting the template for an entire sub-genre, this can happily claim to be one of the most influential games ever made. The recent Virtual Console Wii U re-release has given us such greats as 'Y can't Metroid crawl', cementing it as one of the great work-it-out-as-you-go-along games out there…

Super Mario Kart

DEVELOPER: NINTENDO EAD
YEAR RELEASED: 1992 **GENRE:** RACER

4 **Another obvious choice,** although it'd take a real Blue Shell enthusiast (there's no such thing) to claim that *Mario Kart* was a fair way to settle disputes. Still, few would argue that this wasn't one of the great multiplayer games of our time, especially in the age before the game-breaking Blue Shell came into play. Multiplayer rivalries can still be settled with this tried and tested method, although many cite more recent games – *Double Dash*, *MK7* and even the Wii version – as the best. There's no right answer... well, okay, there is. And it's not *Mario Kart 64*.

Street Fighter II Turbo

DEVELOPER: CAPCOM
YEAR RELEASED: 1992 **GENRE:** BEAT-'EM-UP

3 **If you owned** a SNES and had a second controller, chances are you doubled up for the opportunity to show your mates what a Dragon Punch or a Flash Kick was. *Street Fighter* was *the* go-to competitive game at the time and, while we've since learned to play on stick, that wasn't really an option back then. Capcom did an incredible job of bringing the arcade experience home – there are few better coin-op conversions than this one and it was this kind of perfect port that made your friends with a Mega Drive incredibly jealous.

The Legend Of Zelda: A Link To The Past

DEVELOPER: NINTENDO EAD
YEAR RELEASED: 1991 **GENRE:** ACTION-RPG

2 **Arguments will rage** until the end of time as to which of Link's adventures is the best (ironically, it's *definitely* not *Link's Adventure*) but it's this seminal title and *Ocarina Of Time* that most often find themselves tussling for the top spot. While the 3D debut was unquestionably a masterpiece, it likely wouldn't have existed at all had it not been for this beautiful and surprisingly open RPG – it might have offered slightly more direction than the NES original but it still managed to feel like you were lost in a strange world with only your wits (well, those and whatever tools you could loot from dungeons) to rely on. The reveal of the Dark World ranks up there with the best gaming surprises of all time. Eat your heart out, Kojima…

"I remember staying up all night at a friend's house playing it and taking forever to figure out that you needed to light a lamp to open up a door"
Soulstar

Super Mario World

DEVELOPER: NINTENDO EAD **YEAR RELEASED:** 1990 **GENRE:** PLATFORMER

1 Nintendo's mascot was always going to be a clear favourite to claim the top spot on this list, but the landslide took even those of us expecting a moustachioed number one by surprise. Mario didn't just walk this list – he grabbed a Cape Feather and flew over the top of the whole damn thing.

With *Super Mario World* appearing as a pack-in with many console bundles, this would have been the first experience of 16-bit gaming for many people. And what a way to start – it'd be like your first taste of meat being a huge T-bone steak, or your first car after passing your test being a Ferrari. This is seen by many as being as close as we've come to platforming perfection and, truth be told, we're in no position to argue. We still play *Super Mario World* regularly to this day and we're *still* discovering new tricks and secrets hidden away in the many, many stages.

There's so much to talk about in celebration of *Super Mario World* that it's difficult to know where to begin. But, we'll start as is logical – with pretty much the first thing you see when starting up the game. The map structure isn't entirely new, with *Super Mario Bros 3* pulling much the same stunt albeit broken down by level. But, it's the improved sense of scale that comes from having one big map that really makes this feel like an epic journey, and one where the route – and even the destination – aren't always clear. Find a hidden exit to a stage and you can find yourself branching out into areas far more difficult than you're used to. But, with so many routes on offer, there's no shame in returning to the beaten path in order to hurry along your journey to Bowser's castle.

Then, there's the way that each of the power-ups changes how you approach and traverse each stage. A cape will let you soar up to hidden cloud platforms if you can get the speed up to get lift in the first place, while a fire flower lets you muscle your way past many obstacles. There are even a few situational pickups (such as the one that turns Mario into a balloon) to use and abuse, though it's definitely the trusty mushroom that will see the most use. You can even keep one of these back in reserve – useful if you know you'll need it later in a tricky level and don't want to risk losing it along the way.

Whether or not there's such a thing as a perfect game is an argument that will never be won. Whether or not *Super Mario World* is the closest thing we've seen to one, though? That's not even up for debate.

What Makes It So Super

Hidden Exits

If you've got the right power-up and an explorer's spirit, there are loads of secret ways to end levels prematurely. Doing so can open up new paths that let you speed across the world map, as Star Road fans will know

Dino Might

Yoshi eggs are hidden away in many of the blocks scattered around *Mario World*, and unleashing the beast is always a joy. Not only does he offer you an extra hit, there are also certain areas that you simply can't reach without him

Perfect Design

Variety counts for a lot, though it's the fact that there's no weak link that proves the most amazing. Whether swimming, soaring, riding or climbing, *Super Mario World* never so much as misses a beat

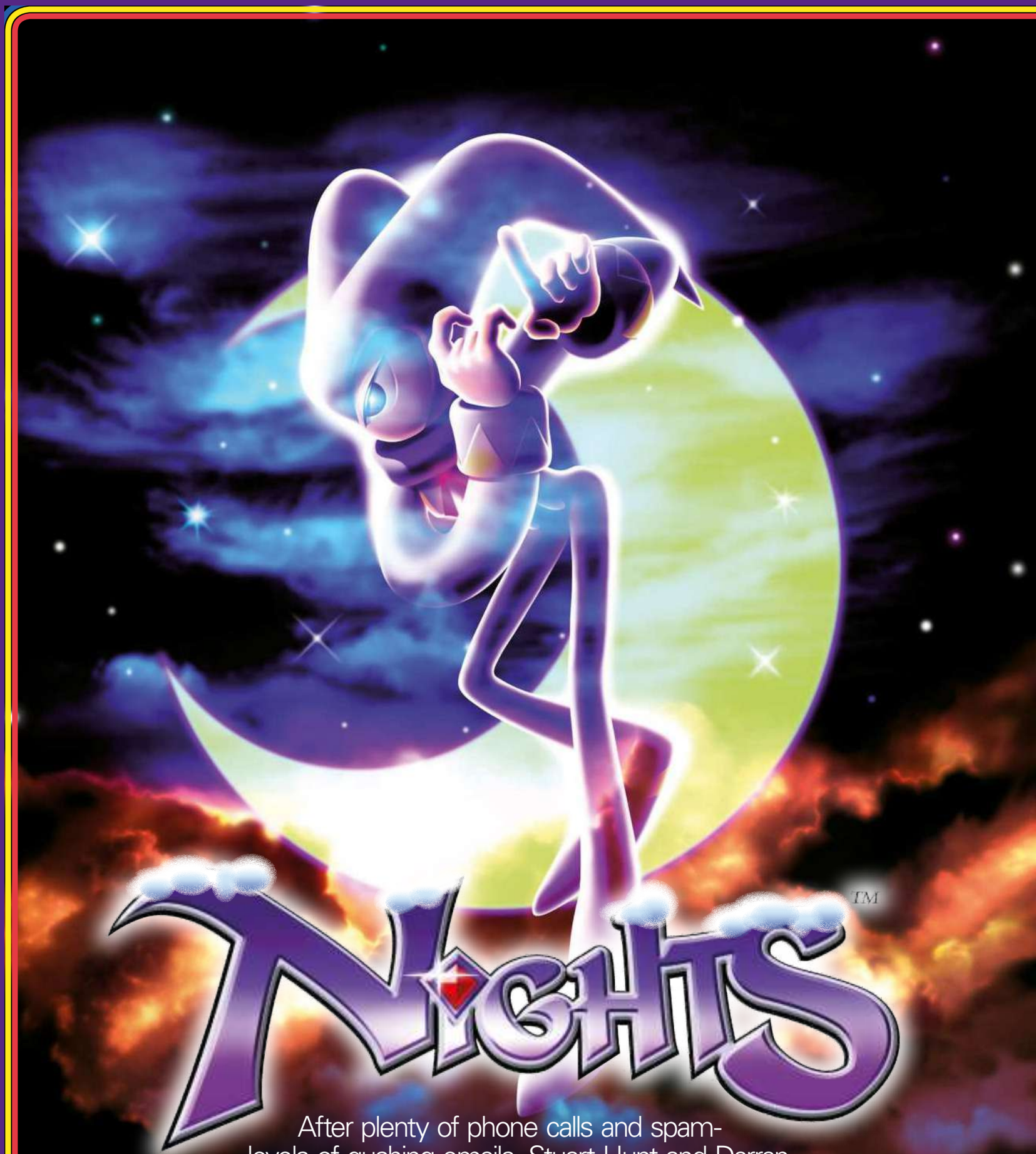
Star Power

Soaring above the world is Star Road, a set of super-tough stages with secret exits on every one. If you know where to find the lot, you can finish the entire game in less than ten minutes

Endless Replayability

So many exits, so many routes, so many tiny little secrets to find... there's just so much to this game that, as we said, we're still finding new power-ups and hidden areas to this day. As close to the perfect platformer as you can get, basically

"Boundless creativity and invention, pixel perfect level design, fiendish puzzles and power-ups that changed the dynamic of play"
Wools



After plenty of phone calls and spam-levels of gushing emails, Stuart Hunt and Darran Jones hook up a sleep monitor to NiGHTS creator Yuji Naka and lead game designer Takashi Izuka, and delve into the creation of one of the greatest Sega games of all time

» Once a round is completed you'll be judged on your score. Yes, we're rubbish.

» *NiGHTS* is such a beautiful-looking game that when we play it we feel all funny inside.

Most dreams would struggle to translate well into a videogame. For those gifted few blessed with the power of actually being able to remember what it is they fantasise about during a night's slumber, fragmented images of work, having babies or the loss of teeth often occupy their subconscious.

For schoolchildren Elliot and Claris, however, dreams continually involve a bountiful world of pirouetting jesters and giant alarm clocks. Dreams that we suspect must be the result of cheese-loving parents forcing upon them a continual and questionable diet of Camembert on toast, grated Parmesan over cornflakes and Babybels dunked into conjugating warm milk.

1996 saw a period that would have us rethinking the way we looked at game genres. Nintendo would take 2D platformers to another dizzying dimension with *Mario 64* and, after a peculiarly low-key debut, Lara Croft finally found her natural home on the Sony PlayStation.

Meanwhile, the Sega Saturn had been surviving on a diet of wonderfully accurate arcade ports and superlative 2D imports. Sega had bolstered its machine's popularity with the help of a few new and exclusive IPs – most notably *Panzer Dragoon* and Treasure's wonderful 2D hack-'n'-slash classic *Guardian Heroes*. But it still lacked something spectacular, something unique, something blue and spikey.

Yuji Naka, formerly of AM8, was selected to spearhead a new hand-picked development team made up of six people: three programmers (including Naka himself), two artists and one lead game designer (Takashi Izuka). By the time *NiGHTS* was finished the team had swelled to 20. AM8 had previously delivered Sega an armament against the might of *Zelda* with *Phantasy Star* for the Sega Master System, and followed up with a platform game to stand up to the potent combo of a new console from Nintendo and the creativity of Shigeru Miyamoto.

Sonic The Hedgehog is arguably the single most important title in Sega's lineage. It was a title that helped relight the fuse underneath Mega Drive sales. It not only made massive strides in platform gaming but, thanks to its exhilarating sense of speed, also had an influence over other genres as well.

Instead of taking in the lush, bountiful stages that his team had constructed, Naka created a platform game that essentially asked players to whiz past their work and reach the end of each stage as quickly as possible. Loaded with ramps and springs, jumps and loops, the levels would continually project you forward at a dizzying pace. This sensation and gameplay had never been seen before, not even in racing games – a genre supposedly built on generating this whole feeling.

For this reason, *NiGHTS* is inexplicably the creation of Naka. It's undoubtedly another tweaking of the platform and racing genre. You could even argue that it represents a refinement of *Sonic The Hedgehog* itself – there are certainly similarities that can be drawn: the look of the jesters with their giant eclipsing-eyes and aerodynamic heads, and the adrenaline-provoking gameplay. Both games ask you to dart through their beautiful worlds and register their lavish detail using the subconscious cortex of your brain, while all the time retaining an accessible, tactile nature to their controls and gameplay.

"Including the game design and whole story, it took about two years to ▶

» Defeating the many varied bosses often requires a little lateral thinking and a great deal of skill.

IN THE KNOW

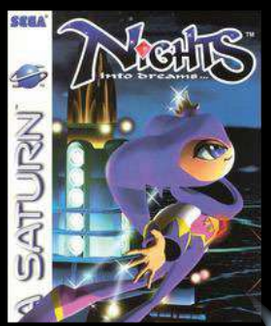
» **PUBLISHER:** SEGA

» **DEVELOPER:** SONIC TEAM

» **RELEASED:** 1996

» **GENRE:** PLATFORMER/RACER

» **EXPECT TO PAY:** £10+



THE CAMEOS OF NIGHTS

» It looks corny, but there's something quite liberating about throwing out your arms and pretending to fly through giant rings.

While it's taken a good ten years for Sega to get around to making a new *NiGHTS* game, the loveable jester hasn't actually been absent from our TV screens.

The cute little fella has appeared in a number of cameos over the years, and while many of them are of the 'blink and you'll miss him' variety, he's popped up enough times in other titles to ensure that he's always there in the back of our minds.

As well as being one of the hatchable eggs (along with Sonic) in the GameCube's *Billy Hatcher And The Giant Egg*, the purple-clad hero has also featured on pinball tables in both *Sonic Pinball Party* and *Sonic Adventure*, and there was even a short version of *NiGHTS* for the Game Boy Advance that could be downloaded from *Phantasy Star Online* and the aforementioned *Billy Hatcher And The Giant Egg*. Our favourite NiGHTS cameo, however, is the superb flying mini-game that can be found in the EyeToy title *Sega SuperStars*. Standing in front of your TV screen with your arms outstretched, it's possible to actually control NiGHTS as he flies through the air. Okay, so you look a bit funny while you're doing it, but when you love *NiGHTS* as much as we do you'll do anything for a cheap fix. Even if it means utter humiliation when your friends walk in.

AS CLEAR AS NIGHT AND DAY?

When you're working on tight deadlines and have to achieve a million and one things at once it's perhaps inevitable that small discrepancies will slip into your final product. Surely though, a development team would be savvy enough to know when something doesn't look quite right on their new hero? Nevertheless, this is exactly what happened when Sega finally released its exciting new game. "I'm not really sure what you'll think of this," begins Takashi rather sheepishly, "but did you ever notice that NiGHTS has different coloured sleeves in the FMV and the actual game? The yellow and purple colours are actually opposite. We didn't find out about it until we released the game in Japan. Our original plan was for him to have the colour that's in the game (yellow triangle). However the image of NiGHTS in the FMV became far more popular than the actual in-game one, so we decided to stick with the purple triangle for the sequel *Journey Of Dreams*."

DEVELOPER HIGHLIGHTS

BURNING RANGERS
SYSTEM: SEGA SATURN
YEAR: 1998

RISTAR (PICTURED)
SYSTEMS: GAME GEAR, MEGA DRIVE, NINTENDO WII
YEAR: 1995

SONIC THE HEDGEHOG
SYSTEMS: MEGA DRIVE, GAME GEAR, MASTER SYSTEM
YEAR: 1991

▶ finalise," explains Izuka. "We had a lot of problems throughout development. You can't imagine how many times we had to rebuild the Spring Valley stage. Trying to lock down the rule of blue chip collecting and breaking the Mare Capture was a pain – we tried so many rules. Because there was no similar game for us to use for reference, we had to create everything from scratch."

Sadly, while Lara and Mario had leapt into a wave of success, *NiGHTS* would be appreciated by a staunch few who realised immediately how sublime the game really was and the gravitas of a new title coming from the Sonic Team stable. But sadly, the feminine and cute look of *NiGHTS*, and the colourful and tranquil world of Nightopia did nothing to entice the new breed of gamer that Sony had harvested.

» The Mystic Forest in all its dark and mysterious glory.

As well as etching out a new market for itself, Sony had also eaten heavily into Sega's share of the market by targeting its new console towards a similarly mature consumer. The sight of a character in tights jumping and twirling around the screen with the grace of a ballerina would do nothing to drag them away from the foreboding corridors of *Resident Evil* and the girl-powered lady lumps of Lara Croft.

But for those who were lucky enough to pick up a Saturn control pad and test the water with *NiGHTS*, the payoff was something truly spectacular. It cannot be pigeonholed into any one genre. It's a testament to the game's originality that makes it incomparable to any other game, other than *Sonic*, of course.

When Naka reveals where he found inspiration for the look of the NiGHTS a painfully obvious penny drops. "*NiGHTS* has been inspired by various titles and characters. Personally, I think that it was inspired by my very favourite show, Cirque Du Soleil's *Mystere*."

Looking at the game's many wonderfully flamboyant stages, the energetic animation and sweeping movements in the game with this in mind, it becomes an easy association to realise. The sense of agility in the game, soaring through mesmerising patterns, the hoop jumping and bunting explosions meant that being at the circus was exactly how the game felt.

"Yuji Naka wanted to produce a 'Flightless Bird' game from the very beginning," reveals Izuka. "The concept was if you do your best your dreams will come true, even flightless birds can fly in the sky. We had long discussions and came up with the idea of NiGHTS who can fly, and two characters, Elliot and Claris, who can't fly."

Naka adds, "Since *NiGHTS* was created to impress as many people as possible, we researched a lot of colours and meanings of things, using different methods and settling with the dream diagnosis. I remember crying when checking the movies. I've developed many games, but *NiGHTS* was the first and last time that I was moved by my own game."

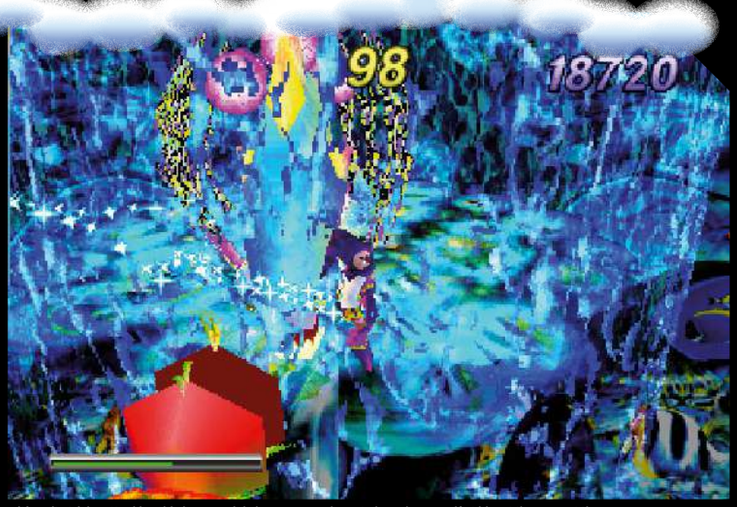
Of course, the game's sense of freedom and control would be nothing without a brilliant control system. The interest that the peculiar N64 spaceship control pad had garnered, and the wondrous things it could be seen to add to *Mario 64* was proof of that fact alone. Naka realised that while the Saturn's robust and rigid control pad proved to be a perfect fighting instrument, it didn't really lend itself particularly well to the graceful gameplay of *NiGHTS*. So the team began work on a custom control pad with an analogue nub to allow for unparalleled precision. And the first person to ever get a handle on it would be someone very special.

"The analogue pad was a must have item in terms of having the players experience the feeling of flying in the air.

"BECAUSE THERE WAS NO SIMILAR GAME FOR US TO USE FOR REFERENCE, WE HAD TO CREATE EVERYTHING FROM SCRATCH" IZUKA ON THE INITIAL PROBLEMS THE TEAM FACED WHEN DEVELOPING NIGHTS

» Certain sections of Frozen Bell sees NiGHTS turning into a temporary toboggan.

» It's not all side-on flying in *NiGHTS*, as this view from above proves. You'll normally use this mode to navigate small mazes.



» It's quite tricky attacking this boss, mainly because you have to launch yourself at him at the correct time.

Also, this might be a secret, but the first person who touched the trial version of the analogue pad was Steven Spielberg, when he visited Sega and I did a presentation of *NiGHTS*," Naka recalls.

The sense of fluidity the analogue controls added brought the player even closer to the game, involving them in ways that had previously never been seen before, and allowed for wonderful sensations mirroring those exhilarating sections in *Sonic The Hedgehog*. But it would be a factor that Naka and his team would struggle to perfect.

synchronised and reflect itself to the playing character. This is the reason why we tested quite a lot of different patterns, and I remember narrowing them down."

Perhaps the most peculiar aspect about NiGHTS is the way the game exhaustingly switches from two dimensions to three dimensions. Claris and Elliott, in their normal state, are free to roam their wonderfully flourishing 3D world. In their 'normal' state they must avoid the menacing trundle of a giant stalking alarm clock and can intermingle with the game's wonderfully angelic-looking Nightopians: the game's subtle A-Life system. While it is a well-known fact that the Sega Saturn struggled within three-dimensional worlds, Naka's vision for the game would soon dampen his hesitance to pull the game out of two dimensions.

"At the beginning we thought that developing in full 3D would be very difficult," admits Naka. "However, in midstream we started to think that it might be possible and started to experiment. The result was great and that is what ended up being Claris and Elliot's on-foot section."

He continues, "The A-Life system was developed because of the team's desire to show the life of living creatures in a very realistic environment throughout the game. The characters performed much better than I had ever expected or imagined."

The Nightopians were angelic hatchlings that lived in the world of Nightopia. They would all behave individually according to their own experiences in the game. They could breed with the game's sinister Nightmaren enemies and could even die if the player came to close to them. *NiGHTS* also featured a fantastic evolving music engine, which allowed pitch, tempo and melody to alter according to their state of mind.

Despite pushing the technical envelope of the Saturn, the most endearing aspect about *NiGHTS* came from the way it affected players on an emotional level. With not one word uttered throughout the entire game, the game's narrative unfurls visually and is fused with one of the grandest musical scores to have ever graced a videogame.

"Our sound team got involved once we locked the game concept, I remember that they also struggled with the direction of music and sound, much like we did with the game design," recalls Naka. "They produced and cancelled and tried again and again. We eventually came up with the tune, which is the main theme song of *NiGHTS*." ▶

"AT THE START WE THOUGHT THAT DEVELOPING IN FULL 3D WOULD BE VERY DIFFICULT"

NAKA ON ONE OF THE DIFFICULT DECISIONS THEY FACED

"Expressing the feeling of flying in the air and the creation of a totally new system was very challenging; it required a lot of trial and error," he says. "The intention was to have the players feel

» Look how beautiful it is, just look at it.

NiGHTS ADVENTURE

As game development progresses, you'll often find certain titles get cancelled (often quite late in development) when their original host platform is seen as a non-viable product. While the development and eventual cancellation of *Sonic X-treme* is well documented (you can read about its demise in issue 22) there was another *Sonic* title in development for the Saturn that used the *NiGHTS* engine. Namely, *Sonic Adventure*. "Yes, we'd been developing our own full 3D *Sonic* game, *Sonic Adventure*," confirms Izuka. "However, due to technical issues and the timing of the upcoming Dreamcast project, we had to end it and instead incorporated it into the Saturn's *Sonic Jam*. We then moved development for *Sonic Adventure* on to the Dreamcast." This could well reveal why Yuji Naka allegedly decided to quit after he discovered that Sega Technical Institute was using the *NiGHTS* engine for the aforementioned *Sonic X-treme*.

WE WISH YOU A MERRY CHRISTMAS (AND A HAPPY NEW YEAR)...

Along with the first disc of *Panzer Dragoon Saga*, *Christmas NiGHTS* is arguably the greatest freebie to have ever been given away with a magazine. Using the Saturn's input clock, details about the game will change depending on when you play it. Normally known as *NiGHTS: Limited Edition*, the title screen displays 'Winter NiGHTS' during the months of November and January and everything is coated in a layer of rich snow. Come December, 'Christmas NiGHTS' mode is activated, and a slew of fantastic little features are unlocked. Nightopians dress up as Christmas elves, the huge Ideya captures are replaced by Christmas trees, while an instrumental version of *Jingle Bells* plays in the background. Then there's notification of New Year's Day and the fact that you can play as a Reala on April Fool's Day. Perhaps the best extra of all though is 'Sonic The Hedgehog: Into Dreams', where you get to play as the loveable mascot and race around Spring Valley on foot. Thank God Shadow wasn't around then.

NiGHTS would be the last title that Yuji Naka would contribute on as a main programmer. It was developed during a period when the role of a producer, in a videogame sense, had finally started to become clear. His work promoting the game would prove as significant as his creative input.

"In order to introduce the title to as many people as possible, I created promotion assets such as videos and pamphlets," says Naka. "However, most of all by creating *Christmas NiGHTS*, I was able to plan services for fans and it was a very good challenge for me."

The idea behind *Christmas NiGHTS* came to Yuji Naka while on a trip to America. He explained that he was a big fan of *Lemmings*, a game he first discovered while working on *Sonic 2*. After spotting the festive *Christmas Lemmings* in a store, he felt inspired to use the idea to incorporate something similar into his own work. For Yuji, *NiGHTS* lent itself perfectly.

"The plan was to create a demo to bundle with the Saturn. There was a Christmas campaign by Sega to come up with something special and we came up with the idea of *Christmas NiGHTS*. We really enjoyed developing the additional content and adding the new stories. It was fantastic to see the finished product end up more than just a demo. We launched the original *NiGHTS* in July and released *Christmas NiGHTS* that Christmas." recalls Izuka.

Using the internal clock mechanisms, that Sega had supplanted inside the Saturn, allowed Sonic Team to eke out even more life from the disc. If you played around with the machine's clock it was possible to unlock 'Happy New Year' and 'Summer NiGHTS' festivals within the game.

In 2007 the last official NiGHTS game was released, this time for Nintendo's Wii. The move to Nintendo's system made perfect sense thanks to the large install base the console had and it also allowed Sonic Team's series to reach a brand-new audience. Of course, from our point of view, we wanted to know why the game took so long to arrive in the first place.

"We had been wishing to produce a sequel for over 11 years," says Izuka. "In fact, in an interview a long time ago, I promised to make a sequel someday. However, I had a mission to bring the *Sonic* series out, plus NiGHTS was not that well known a character so it took a long time to make this happen. I'm based in the US Sonic Team studio and nowadays Sonic Team Japan produces all the *Sonic* titles, so finally I got my chance to work on *NiGHTS*."

NiGHTS: Journey Of Dreams plays it relatively safe and shares many similarities with the Saturn original, but that doesn't mean new elements weren't added and tweaked.

"From the experience of the original game and gauging the public's reaction, I realised that we had one or two features that were not user-friendly and perhaps ended up confusing some people," admits Izuka. "As you may know, the

» Don't worry we didn't actually get an "A" rating. Everything was still spinning when we took the screenshot.

» NiGHTS takes a quick rest, before heading off to collect more blue orbs.

» Brrrr… Looks cold doesn't it? Best pack a scarf and some mittens.

» Don't be fooled by the new look, the original *NiGHTS* magic is still in abundance.

boy and girl characters are essential in *NiGHTS*, but in the original game these characters simply played a recovery role when you and your NiGHTS timed out. To make the game simple while still offering depth, in the upcoming *Journey Of Dreams* game, we set them up as having their own missions, so they become more than just sub-characters."

He continues, "We've kept the original gameplay, while also making it simple and friendly for the new users. The appeal of the characters and the world the NiGHTS live in; these are the points

Asking Izuka and Yuji what it is they're most proud of about the game seems a somewhat silly question, but they both polarise their answers towards the reactions of the player and not the game.

"There are a lot features that I am particularly proud of. Tackling the subject of the challenges of growing up [is one] and the game's unique controls is another. But if I needed to choose one, then I would say the excitement of the last stage. People are touched by RPGs and adventure games in the same way that they are by *NiGHTS*. We are very

> "WE'VE KEPT THE ORIGINAL GAMEPLAY, WHILE MAKING IT SIMPLE AND FRIENDLY FOR NEW USERS"
> IZUKA ON JOURNEY OF DREAMS

I wanted to improve for the sequel. We had a long discussion within the team about the depth of the game. We came up with new ideas such as My Dream, which is a new feature that allows you to customise your personal world through Nintendo Wi-Fi connection."

proud that we could provide and express all that excitement from an action game," reveals Izuka.

Interestingly, Naka has his own viewpoint, telling us, "I think the part I feel most proud of is how we succeeded in impressing people without using

speech. In recent games, characters will speak and I feel that people are less likely to play by sharing the same emotions and feelings. Many people wrote to us saying that *NiGHTS* had impressed them, and we're very overwhelmed by that."

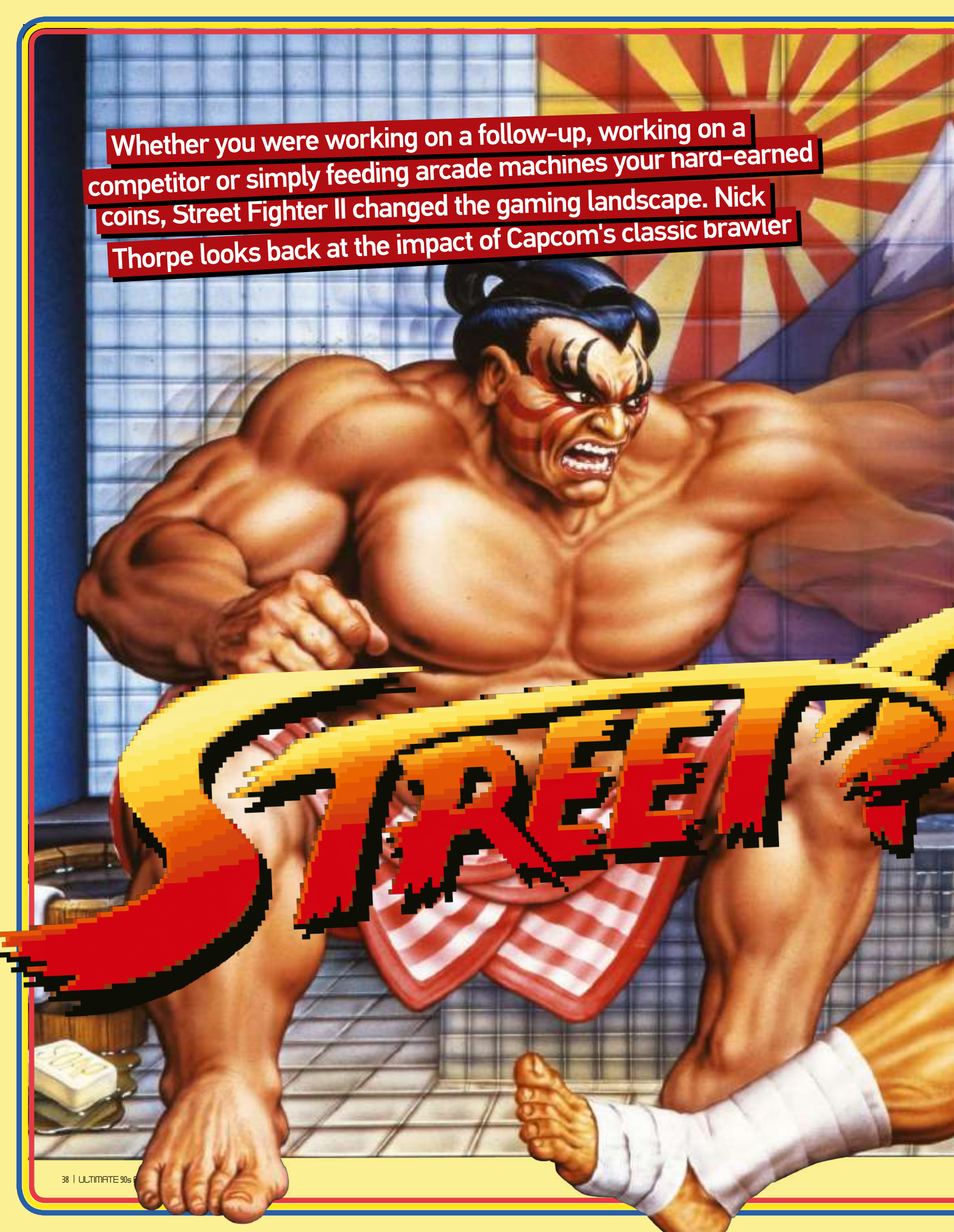
Sadly, *Journey Of Dreams* would be the last new *NiGHTS* game that Sega released, but that wasn't the end. A port of the original game was released in Japan, exclusively for the PlayStation 2 in 2008. It added new bonuses such as widescreen support and the option to play with the original Saturn graphics. It was later ported to the Xbox 360 in 2012. It's largely the same game as the PlayStation 2 original but enhances the visuals for modern TVs and adds online leaderboards. A version was also made available on the PC.

Other than that, NiGHTS has been consigned to cameo appearances, appearing in the likes of *EyeToy: Play*, *Sonic Riders*, *Sega Superstars Tennis* and *Sonic & All-Stars Racing Transformed*. While we're unlikely to get any new games in the series any time soon, we're certainly grateful for the ones that we have. *

» Some of the original Saturn art that was used to promote *NiGHTS Into Dreams*.

» *NiGHTS Into Dreams* was released in 2012 on Xbox Live Arcade.

» *Journey Of Dreams* shows that it's good to touch.



Whether you were working on a follow-up, working on a competitor or simply feeding arcade machines your hard-earned coins, Street Fighter II changed the gaming landscape. Nick Thorpe looks back at the impact of Capcom's classic brawler

***Street Fighter* was a game that made an impact, but it wasn't a huge impact. It was popular, in part due to its deluxe cabinet featuring pressure-sensitive** buttons (a gimmick co-developed with Atari), and did decent business in the arcades and on home formats. What's more, SNK headhunted Takashi Nishiyama and Hiroshi Matsumoto, the game's director and planner respectively. However, it wasn't a broadly influential game or one that particularly screamed out for a sequel.

As a result, Capcom found itself in a dilemma – it had established the *Street Fighter* brand and got some momentum behind it, so it was keen to continue using the name in some fashion, but the key players had left the company and it didn't particularly want to make a new one-on-one fighting game. The fighting genre wasn't exactly a huge deal in the arcades or at home, having seemingly peaked a couple of years earlier with the likes of *Yie Ar Kung-Fu*, *Way Of The Exploding Fist* and *International Karate*.

That's why the first two attempts to follow up on *Street Fighter* weren't competitive fighting games. *Final Fight*, a scrolling beat-'em-up designed to compete with the likes of the *Double Dragon*, was originally marketed as *Street Fighter '89* before being renamed. A year later, the infamously dodgy *Street Fighter 2010* arrived on the NES and ventured into safe platform shooter territory.

Just as Capcom wasn't keen to make a direct follow-up to *Street Fighter*, other developers weren't looking to it for inspiration. "I remember playing the *Street Fighter* machine at my movie arcade with the giant punch buttons and loving it despite those lame buttons," says Michael Latham, who worked on a variety of fighting games during his time at Activision and Sega. However, the older games were still the key reference points for his early work in the genre. ▶

RYU

SPECIAL MOVES

(WW) Hadoken: ↓↘→ P

(WW) Shoryuken: →↓↘ P

(WW) Tatsumaki Senpukyaku: ↓↙← K

(HF) Kuchu Tatsumaki Senpukyaku: ↓↙← K (In air)

(SU) Shakunetsu Hadoken: ←↙↓↘→ P

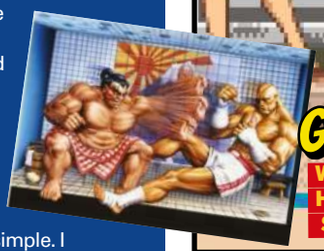
SUPER MOVE

(ST) Shinku Hadoken: ↓↘→↓↘→ P

Art Attack

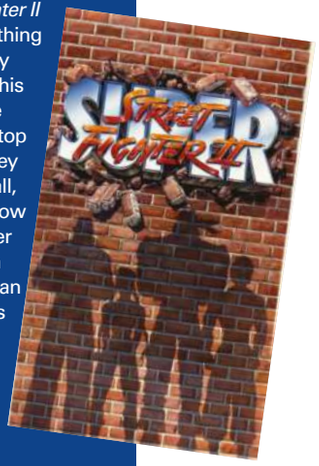
Mick McGinty talks us through some of his Street Fighter II box art

How much reference material were you given for an illustration such as this?
Hardly none. It was a Polaroid camera shot, Denny Moore sent me a couple of Polaroid shots that the manufacturers would send. The characters that they sent me, I saw them all in digital form. I'd get an idea of the background – "We've got this project called *Street Fighter*, it's very big in Japan, and we want a very American-looking image in order to promote it and put it on the cover." I just thought of a really dramatically lit alley scene with trash cans getting knocked over and the brick wall in the background. They might have even given me the choice on this one to choose the characters, and the most exciting and interesting one to me was Blanka – his cannonball would look great coming in from the left.



Turbo is one of my more favourite ones, I don't know why. I guess just because it was simple. I remember doing the first couple of sketches, and Denny Moore took it to Capcom and they said, 'We really want this punch attack.' What they really wanted to facilitate was a whole bunch of 'ghost hands,' and what I had was one big punch going straight at Sagat. But I just like it because it's really straightforward and you get a good look at the characters. I went into muscle building magazines and tried to make E. Honda sort of super big and muscular, rather than just layers of fat – especially the shoulders. They said, 'Go crazy, make these guys look really bad – they're the best fighters in the world and they're knocking each other around the room.'

This one's a very different look from the other ones, as it's just the character silhouettes…
Well, how it started was that I did just the top section, that just says *Super Street Fighter II*. Then Denny says, 'Okay, what they want is to have you re-illustrate this *Street Fighter II* in wet paint' – I literally copied something that was given to me – "and then they want the word super busting out of this brick wall." And that was actually the cover to some other format, just the top part, and then the shadowy thing, they said, 'We want you to do a bigger wall, with some light that's casting a shadow of other characters,' – I can remember the Indian chief and the little girl with the beret, she reminded me of a Cuban martial arts girl, I don't know why. It's kind of a weird-looking illustration when you think about it.



» Meditation hasn't done a lot of good for Dhalsim's hot temper.

Game Series Key

WW Street Fighter II **CE** Street Fighter II': Champion Edition
HF Street Fighter II' Turbo: Hyper Fighting **SU** Super Street Fighter II
ST Super Street Fighter II Turbo

» Throwing is an extremely important tool to use against defensively-minded opponents.

» Bringing bosses into the mix was a massive boost to *Champion Edition*'s multiplayer experience.

▶ "1984 was the year that my desire to make a fighting game started. I was a senior in high-school and arcades were at the heights of being a huge thing," Michael explains. "*Karate Champ* was the first 2D fighting game where I could challenge other players. I was obsessed with this coin-op. Countless hours and quarters went into playing the computer training hard so I could beat any challenger. I remember it being hard to find challengers as people would get angry if you beat them quickly, as it seemed like a waste of a quarter." Alongside *Kung Fu Master* and *Karateka*, this was the game that Michael was thinking of while working on the 1989 fighter *Tongue Of The Fatman*.

There are conflicting explanations of the actual circumstances that caused the eventual production of *Street Fighter II*, but the most corroborated story from developers is that Capcom had asked for a *Final Fight* sequel and the team decided to make a *Street Fighter* sequel instead – an ironic reversal of the situation two years prior. With the previous game's lead designers elsewhere, a new team took on the challenge and brought with them some new ideas. For a start, art was a huge part of the game design, with half of the staff working on it. This allowed Capcom to generate a huge number of ideas and provide a cast that was almost entirely new, with only three returning characters – protagonist Ryu, final boss Sagat, and player two's Ryu clone, Ken. The new characters were to be based on broad stereotypes of various nationalities.

The other big difference was that *SFII* would be focused on competitive gameplay, an aspect of arcade gaming that had been crucial to the

Ken

SPECIAL MOVES
(WW) Hadoken: ↓↘→ P
(WW) Shoryuken: →↓↘ P
(WW) Tatsumaki Senpukyaku: ↓↙← K
(HF) Kuchu Tatsumaki Senpukyaku: ↓↙← K (In air)
(ST) Kama Barai Geri: ↓↘→ K
(ST) Nata Otoshi Geri: →↘↓ K
(ST) Oosoto Mawashi Geri: ←↙↓↘→ K
(ST) Inazuma Kakato Wari: Hold K during any Geri attack
SUPER MOVE
(ST) Shouryu Reppa: ↓↘→↓↘→ P

» Chun-Li was the first of many female fighters in the *Street Fighter* franchise.

CHUN LI

SPECIAL MOVES
(WW) Yousou Kyaku: ↓ (In air)
(WW) Spinning Bird Kick: ↓ (Hold), ↑
(WW) Hyakuretsu Kyaku: (Tap) repeatedly
(HF) Kikouken: ← (Hold), →
(ST) Tenshou Kyaku: ↙ (Hold),→↓←↗
(ST) Inazuma
SUPER MOVE
(ST) Senretsu Kyaku: ← (Hold),→←→

> **"The characters in the Street Fighter series are fantastical"**
> Yoshinori Ono

success of early games like *Pong*, but which had fallen out of favour over the years due to the rise of co-op play and high score tables. Capcom's idea was that encouraging two-player games would maximise revenue for arcade operators, and unlike a co-op game players couldn't feel cheated by a high difficulty level. Of course, the original game also had a multiplayer mode, but players were limited to two characters with identical abilities. This was a much poorer experience than the single-player mode, which allowed players to fight ten opponents with a variety of techniques.

Street Fighter II proved to be a major production for the era. With a development team of approximately 35, the game cost almost $2.5 million to make. It was a real gamble for a sequel to a game that hadn't set the world on fire, but one which had evidently paid off when you saw the game's astonishing visuals and heard the excellent music. But while those aspects were great, what sent it over the top was the design.

Much like its predecessor, *Street Fighter II* challenges players to win a series of one-on-one fights in a bid to win a fighting tournament. It retains some of the gameplay characteristics of the original game, including a control scheme with three strength options for punching and kicking, as well as the inclusion of special moves accessed with combinations of movements and button presses. In the single-player mode, you'll face off against the characters you didn't pick before taking on the game's four bosses – Balrog, Vega, Sagat and M. Bison. To break up the game a little, you're challenged to a bonus game every few rounds in which you destroy objects like a car, barrels and oil drums. Once M. Bison is defeated, you'll see a unique ending sequence for your character.

Unlike the original game, *Street Fighter II* gives you the choice of eight characters with distinct fighting styles, and they were an eye-catching bunch. Whether you were looking at Guile's bizarre haircut, Dhalsim's rubber limbs or the lightning hands of E. Honda, you were definitely looking at them – and each boasted a unique background themed around their nationality as well as a memorable theme tune. Yoshinori Ono, the executive producer of *Street Fighter V* and a veteran of the series, attributes much of the game's success to cast of characters. "The characters in the *Street Fighter* series are fantastical and couldn't really exist in the real world, but they all have their charms and amusing moves, expressions and storylines," he says.

Given that, it's no surprise that his favourite cast member is Blanka, the green-skinned wild man with an animalistic fighting style. "I mean, you bash the buttons and he releases electricity from his body! You wouldn't see that in an ordinary game or in a movie. Even the animations for his basic punch and kick moves are just really funny to me. Finding those humorous aspects within the potentially quite serious setting of playing an eSports ▶

» "How could you not love that face?" laughs Ono. It's hard not to, that's for sure.

» Each character's special moves were unique, and allowed players to respond to a variety of threats.

E.HONDA

SPECIAL MOVES
(WW) Super Zutsuki: ← (Hold), →
(WW) Hyakuretsu Harite: (Tap) repeatedly
(HF) Super Hyakkan Otoshi: ↓ (Hold), ↑
(SU) Flying Sumo Press: ↓ (M) (In air)
(ST) Ooichou Nage: ↓ (Hold), ↑
(ST) Oosoto Mawashi Geri: →↘↓↙←
SUPER MOVE
(ST) Oni Musou: ← (Hold),→←→

▶ match of *Street Fighter* is, I think, one of the reasons the fans have continued to love the series as long as they have, and it's also one of the reasons why I love it."

BLANKA

SPECIAL MOVES
(WW) Electric Thunder: (Tap)
(WW) Rolling Attack: ←(Hold), →
(HF) Vertical Rolling: ↓(Hold), ↑
(SU) Backstep Rolling: ←(Hold), →
(ST) Surprise Forward: →(All)
(ST) Surprise Back: ←(All)
SUPER MOVE
(ST) Ground Shave Rolling: ← (Hold), →←→ (Hold)

» With Ryu vs Ryu mirror matches possible in *ChampionEdition*, Ken became his own character.

Peter Rosas rose to prominence on the competitive *Street Fighter* scene under the name Combofiend before joining Capcom himself, and shares a similar view. "Worldwide, anyone who's ever played videogames is aware of Ryu and his Hadoken and of Chun-Li and her lightning kicks. Regardless of what platform it's on, people relish using *Street Fighter II*'s iconic characters to fight one another while performing those characters' simplistic signature attacks." Indeed, everyone has a favourite. Michael first encountered the game at Sega, where a cabinet had been bought for research on its own fighting game, *Eternal Champions*. "For a period of time I was the office champ using Chun-Li as my character," he recalls. "Sadly, some of the testers learned my play and soon crushed me." Mark Starkey, owner of London arcade The Heart Of Gaming, leans towards Ken. "Ken was an aggressive Ryu with more combos, and his rotation-based execution meant the pace of the matches was always fast," he explains.

The additional characters certainly added longevity to the single-player game, as players could opt to try to win the tournament with each of them individually, but arguably the game's biggest impact was in bringing an element of direct competition back to arcades. "Previously all two-player games had been co-operative rather than competitive," Mark recalls. "*Street Fighter II* revolutionised this, pitting players against each other, all determined to not be the person forced to go and change up more money in front of their peers in order to be able to continue." Peter points to the widened character roster as a key reason that the game took off competitively. "Regardless of your style, there was one character amongst the eight that would fit. On top of that, the speed, fluidity of controls and ability to perform combos really made *Street Fighter II* stand out ahead of its time."

Ono agrees. "I can still remember clearly the feeling of not playing a game so much as being able to take on an opponent in such a visceral way," he says. "At the time there weren't that many videogames that allowed you to compete against someone like that, the same way as you would when playing sports or indoor games like pool and darts."

What elevated *Street Fighter II* from a trend to a phenomenon was its fighting system, which boasted depth. "I would say *Street Fighter II* cracked the next step of how an interactive fighting system worked," says Michael. "Back in the *Tongue Of The Fatman* days the fighting systems were very 'rock, paper, scissors'. Both people could launch either an attack, defence, or projectile in some cases. *Street Fighter II* was the dawn of combos. The ability to string a combo of moves was the game changer. It made the game play fluid and far more strategic."

The ability to perform combos – attacks which cancel the animation of previous attacks, leaving the opponent no recovery time – was an unintended side effect of an attempt to make special moves easier to perform. "It opened up an entirely new feeling of what was possible in a fighting game," says Peter. "Prior to the introduction of this glitch, which then became a mainstay, fighting games consisted of slow attacks where the entire action needed to be completed before the next action could be performed. This ultimately left fighting games feeling rather stiff."

"Worldwide, anyone who's ever played videogames is aware of Ryu and his Hadoken or Chun-Li and her lightning kicks"
Peter Rosas

Of course, the combo system wasn't the only glitch in *Street Fighter II*, and the game's director Akira Nishitani had been privately fixing them up for personal satisfaction. However, they'd soon be put to use. Demand from Capcom's American branch turned *Street Fighter II* from a static game into an experience which evolved over the years with updates, in response to market developments and the findings of competitive players. Capcom's approach was bold: while the concept of updating an cabinet was hardly new, the upgrade kit was often a overhaul or a completely new game. *Street Fighter II* received four upgrades over the course of three years, all of which left the core of the game intact.

The first updated version, titled *Street Fighter II': Champion Edition*, was released just over a year after the original version in March 1992. The multiplayer game was refreshed with a huge number of new match-ups, thanks

GUILE

SPECIAL MOVES
(WW) Sonic Boom: ←(Hold), →
(WW) Somersault Kick: ↓(Hold), ↑
(WW) Flying Buster Drop: ↓(M) (H) (In air)
(WW) Flying Mare: ↓(M) (H) (In air)
SUPER MOVE
(ST) Double Somersault Kick: ↙(Hold), ↘↙↗

» *Turbo* brought new moves for most characters, like Chun-Li's projectile attack.

» Cammy is arguably the most popular of *Street Fighter II*'s new challengers.

to the new ability for both players to pick the same character, as well as the much more enticing ability to play as the four boss characters. Beyond that, the revision brought bug fixes, a set of move tweaks designed to rebalance the game and some minor graphical updates.

The ease of replacing chips on the *Champion Edition* board gave way to a slew of unofficial updates – notably *Rainbow Edition*, a fast-paced hack which broke the game balance with airborne special moves and bizarre projectile behaviour. At the end of 1992, *Street Fighter II' Turbo: Hyper Fighting* arrived as a playable official alternative. As well as giving seven of the original eight playable characters a new special move (with Guile losing out), the game's speed was noticeably increased. While it sounds like a fairly minor update compared to *Champion Edition*, it is fondly remembered: "I believe it to be the best all-rounder," says Mark. "The game was balanced, and improved on the limitations of its predecessor with extra speed, extra moves and damage levels with better balancing. It's still very popular at arcades in the East." ▶

DHALSIM

SPECIAL MOVES
(WW) Yoga Fire: →←→
(WW) Yoga Flame: ←↙↓↘→
(WW) Drill Zutsuki: ↓(H) (In air)
(WW) Drill Kick: ↓(H) (In air)
(HF) Yoga Teleport (Forward): →↓↘(All) or
(HF) Yoga Teleport (Backward): ←↓↙(All) or
(ST) Yoga Blast: ←↙↓↘→
SUPER MOVE
(ST) Yoga Inferno: →↘↓↙←
→↘↓↙←

TEAM PICKS

The Retro Gamer team looks back at their favourite Street Fighter characters

DARRAN

Chararcter: Zangief

■ 'The Darran Jones Factor' has been circulating around the office for years. It refers to my ability to manically rotate the joystick to pull off insanely quick piledrivers. Therefore I play Zangief.

NICK

Chararcter: Ryu

■ Boring? Maybe, but Ryu perfectly fits my image of what a badass martial artist looks like, complete with white gi and a black belt – as a young karate student, he was what I wanted to be.

JON

Chararcter: Blanka

■ I like to play a defensive game and then slide in with a rolling attack or floor slide. For me, Blanka provides the best chance at keeping my distance but then also ability to get in close if needs be.

DREW

Chararcter: Chun-Li

■ It was not the Hadoken, but Chun's lightning legs (Hyakuretsu Kyaku) that wowed me in *Street Fighter II*. She's such a good all-rounder, and I still play Chun-Li to this day on *Street Fighter V*.

ZANGIEF

SPECIAL MOVES
(WW) Double Lariat: (All)
(WW) Screw Piledriver: (360)
(HF) Quick Lariat: (All)
(SU) Flying Powerbomb: (360)
(SU) Atomic Suplex: (360)(Close)
(ST) Banishing Flat: →↘↓
SUPER MOVE
(ST) Final Atomic Buster: 2x(360)

SAGAT

SPECIAL MOVES
(CE) Tiger Shot: ↓↘→
(CE) Ground Tiger Shot: ↓↘→
(CE) Tiger Uppercut: →↓↘
(CE) Tiger Knee Crush: ↓↘→↗
SUPER MOVE
(ST) Tiger Genocide: ↓↘→↘→

Did You Know

■ There's a hidden catch-up mechanic in *Street Fighter II* – if your opponent has won more rounds than you, your throws will deal some extra damage to help you out a bit.

■ In order to clue players in to the existence of special moves, every button press in the original arcade version of *Street Fighter II* carries a 1-in-512 chance of triggering a special move.

■ The team's original intention was that all projectiles could be avoided by crouching, but those plans were scrapped due to how good the now-familiar Hadoken animation looked.

■ *Divekick*, *Shovel Knight* and *Kaiju Combat* all feature The Baz, a character based on an unused piece of *Street Fighter II* concept art depicting a bullfighter wearing a T-shirt that reads 'Zubaz'.

■ Dee Jay's trousers were originally going to bear the word 'Mantis', but the word was changed to read 'Maximum' because the word still read properly when the sprite was flipped.

▶ Arguably the most major update to *Street Fighter II* came with the game's move to the CPS2 arcade board. *Super Street Fighter II: The New Challengers* was a big overhaul, featuring four brand new characters with their own backgrounds and theme tunes. Fei Long was a clear homage to Bruce Lee and Dee Jay, the first character to be designed by Capcom USA, was fashioned after the martial artist and Tae Bo creator Billy Blanks. T. Hawk (short for Thunder Hawk) was a Mexican powerhouse, while the UK's Cammy was an amnesiac assassin with a mysterious connection to M. Bison.

"I think the new characters added some new ways to play," says Peter. "A good example is T.Hawk. With this introduction, a new grappler entered the fray, yet instead of being ground-based, he was more mobile and able close the distance on the opponent's way faster than Zangief could. Having a mobile grappler was something unseen in *Street Fighter*, and was truly daring."

BALROG

SPECIAL MOVES
(CE) Dash Upper
←(Hold),→
CE) Dash Straight:
←(Hold),→
(CE) Turn Punch:
(All)/(All)
(Hold), release
(SU) Buffalo Headbutt:
↓(Hold), ↑
(ST) Dash Ground Upper:
←(Hold) ↘
(ST) Dash Ground Straight:
←(Hold) ↘
SUPER MOVE
(ST) Crazy Buffalo:
←(Hold), →←→

As *Super Street Fighter II* was running on more powerful hardware than the first three versions, those weren't the only changes. "On-screen combo counters, remixed music, as well as character detailing. We ate up what was thrown at us," Mark recalls. But, the game was a step back in one regard – the additional speed found in *Street Fighter II Turbo* was nowhere to be seen.

The last of the contemporary updates was *Super Street Fighter II Turbo*, which brought back the higher speeds of *Street Fighter II Turbo*. However, its major innovation was the addition of Super moves – powerful multi-hit combos that could only be performed once the gauge at the bottom of the screen had been completely filled. The game also added throw escapes, which allowed players to reduce damage when being thrown, but removed the Tournament Battle mode and the bonus stages.

VEGA

SPECIAL MOVES
(CE) Rolling Crystal Flash:
←(Hold),→
(CE) Flying Barcelona Attack:
↓(Hold),↑ then
(CE) Izuna Drop:
↓(Hold),↑ then ←
←or →
(SU) Sky High Claw:
↓(Hold), ↑
(ST) Scarlet Terror:
↙(Hold), →
SUPER MOVE
(ST) Rolling Izuna Drop:
↙(Hold), ↘↙↗→ then ←/→

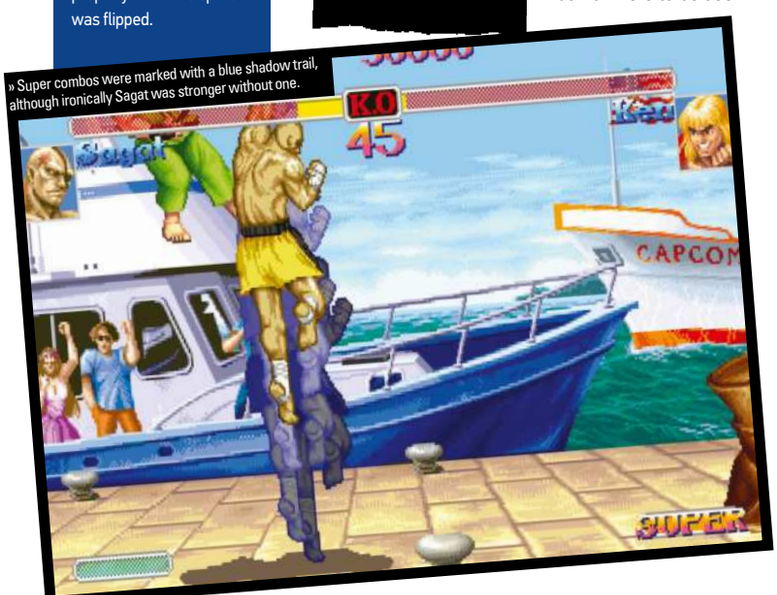
Looking back on the updates, Peter is positive about their impact: "Although I liked some more than others, I felt each were a necessity as Capcom further refined not only how *Street Fighter II* looked and felt, but how fighting games could look and feel." He wasn't alone in that sentiment, as *Street Fighter II*'s updates were also strong critical and commercial successes. "That said," Peter continues, "I remember thinking, 'Just give me *Street Fighter III* already,' when *Super Street Fighter II* was released." He speaks for a vocal section of the community in this regard, as there was a suspicion that Capcom had found a cash cow and was milking it. The update idea had worked brilliantly for the arcade market, where an operator could justify expenditure because it would increase the cabinet's longevity. Only the hardcore would fork out the cost of a full-price game for such revisions in the home market, and the updates released to diminishing returns.

In 2004, a final arcade version titled *Hyper Street Fighter II* was released. It featured the ability to choose not only your character, but also the version characteristics applied to them – meaning it was possible to pit *Champion Edition* Ryu against *Hyper Fighting* Sagat, for example. The last new revision was *Super Street Fighter II Turbo HD Remix*, which added new HD visuals and a remixed soundtrack, as well as a rebalanced mode with simpler control inputs. "It was surprising as the sentiment within the competitive scene was that although *SSFII Turbo* was rather imbalanced (Old Sagat was quite strong) they kind of accepted it and were still finding ways to fight the character well up to *SSFII: HDR*'s release," says Peter. "That said, seeing as how *HDR* had a brand-new look, it would've been weird if the game did not also have a different re-balance."

Street Fighter II's commercial impact is hard to overstate. Both Capcom and operators made major money from the game, as a competitive scene gave rise to tournaments and a competitive scene, the legacy of which can be seen in today's eSports scene and tournaments like the Evo Championship Series.

Of course, success breeds imitators. "Developers saw the impact *Street Fighter II* was having, and it wasn't long before the competition got tough," recalls Mark, "especially with franchises such as *Mortal Kombat*, *The King Of Fighters* and *Tekken* all out by 1994, and all looking to claim the competitive fighting game genre in the arcades." By that point every major arcade manufacturer had jumped on the fighting bandwagon and Capcom felt that some imitators were getting a bit close for comfort. In particular, Capcom took Data East to court over *Fighter's History*, alleging that it had copied fighting styles, appearances and control schemes from *Street Fighter II*. However, the court concluded that many of the similarities between the two games were not protected under copyright law, and that *Fighter's History* had not sufficiently infringed upon those that were.

However, it was certainly possible to carve out a place in the fighting market.



» Super combos were marked with a blue shadow trail, although ironically Sagat was stronger without one.

» With teleportation, air fireballs and insane power, Akuma was a devilish boss.

STAT FIGHTER

The tale of the tape on Capcom's prize fighter

7
Games in the *Street Fighter II* series

65
Character variations available in *Hyper Street Fighter II*

£1000
The amount of earnings a *Street Fighter II* (UK) cabinet could bring in

22.4 billion Yen
The revenue from *Street Fighter II: Champion Edition* sales in Japan alone

24
Number of platforms that received an official version of a *Street Fighter II* series game

200,000
Estimated number of *Street Fighter II* cabinets operated in Mexico

17
Unique characters in *Street Fighter II* series

0
Number of *Street Fighter II* cabinets Capcom sold to Mexican operators

22 Years
How long *Street Fighter II* held the record for best-selling Capcom game

8 Frames
Least forgiving input time limit for a Shoryuken in *Super Street Fighter II Turbo*

15 Frames
Most forgiving input time limit for a Shoryuken in *Super Street Fighter II Turbo*

DEE JAY

SPECIAL MOVES
(SU) Air Slasher: ←(Hold), → 👊
(SU) Double Rolling Sobat: ←(Hold), → 🦵
(SU) Machine Gun Upper: ↓(Hold), ↑ 👊, then 👊 (tap)
(ST) Jackknife Maximum: ↓(Hold), ↑ 🦵
SUPER MOVE
(ST) Sobat Carnival: ←(Hold), →←→ 🦵

> **"The game was balanced, and improved on the limitations of its predecessor"**
> Mark Starkey

The important thing, as Michael notes, was to offer something that *Street Fighter II* didn't. "I think *Eternal Champions* always started with a deep story as the focus. Prior to this, no fighting game had focused on that aspect," he explains. "Given that *Eternal Champions* wasn't an arcade port I also focused to make sure the single-player was rewarded. Training modes and all the various storyline outcomes were designed to reward those players as much as the head to head modes." This paid off for Michael and his team, as the game achieved strong sales despite a crowded Mega Drive fighting market. Indeed, every competitor offered a unique hook, be it the realistic digitised sprites and copious gore of *Mortal Kombat*, the dynamic sprite scaling of SNK's games or the 3D visuals of games like *Virtua Fighter*. However, most games adopted aspects of *Street Fighter II* in return, with the combo system being the most notable.

In the home, *Street Fighter II* was big business, with almost every platform receiving at least one of the game's versions. However, special mention has to be made of *Street Fighter II*'s impact as a third-party killer app for Nintendo – the SNES version was the first home conversion on the market when it arrived in the summer of 1992, and fans of the arcade machine flocked to the console as a result. Nintendo was particularly keen to trumpet the fact that it had the only conversion of the game, memorably placing a full page advert stating "Sega owners… dream on." in the debut issue of *Mean Machines Sega*.

Although other versions did arrive later and some of them were very good, the game always had the strongest association with Nintendo's hardware. In fact, of the 36 million *Street Fighter* games that have been sold to date, roughly a third of those are different versions of *Street Fighter II* on the Super Nintendo – six million of the original, four million of *Street Fighter II Turbo* and two million of *Super Street Fighter II*. For comparison, *Street Fighter II: Special Champion Edition* on the Mega Drive sold 1.65 million copies and *Super Street Fighter II* failed to crack a million.

M. BISON

SPECIAL MOVES
(CE) Psycho Crusher: ←(Hold),→ 👊
(CE) Double Knee Press: ←(Hold),→ 🦵
(CE) Head Press: ↓(Hold),↑ 🦵
(CE) Somersault Skull Diver: 👊 (After Head Press)
(SU) Devil Reverse: ↓(Hold),↑ 👊
SUPER MOVE
(ST) Knee Press Nightmare: ←(Hold), →←→ 🦵

While updates had provided diminishing returns over *Street Fighter II*'s lifetime, they had kept the game relevant for years and encouraged a thriving player base. Capcom would continue using updates in this way as a result, putting out a variety of revised versions of *Street Fighter III* and *Street Fighter IV*. Other developers also adopted the use of interim updates in their own fighting games, with some proving just as prolific as Capcom – for example, Arc System Works produced five revisions of *Guilty Gear XX*. However, the end of this business model may be in sight as Capcom abandoned the practice for *Street Fighter V*, which will rely on rolling DLC instead.

For Capcom, the success of *Street Fighter II* was transformative – not only did the company create further *Street Fighter* sequels, it began to ▶

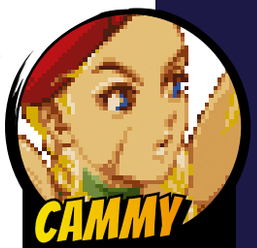
▶ gear its arcade output heavily towards fighting games. This peaked in 1998, when seven of Capcom's nine arcade releases were fighting games – and four of those featured Ryu, in a prequel (*Street Fighter Alpha 3*), a sequel (*Street Fighter III 2nd Impact*), a spin-off (*Street Fighter EX2*) and a crossover (*Marvel Vs Capcom*). This persisted until the decline of fighting games around the turn of the century, but the company also takes the credit for the genre's revival with *Street Fighter IV*.

Street Fighter II reshaped a genre, and its influence continues to be felt today . "With many things popular today, there is heritage. *Star Wars, Final Fantasy, James Bond, Shenmue*, take your pick," says Mark. "There will always be people who will be curious about the roots of something they fall in love with, and with *Street Fighter V* on the horizon, *Street Fighter* is as popular as ever."

But while *Street Fighter V* drives renewed interest in the series, what truly marks *Street Fighter II* out as a stunning sequel is that the staff of the new games often refer back to it. "One of the things that made *Street Fighter II* stand out was that anyone could walk up and hit buttons and leave satisfied," says Peter. "When designing *SFV*, that was one of our core design pillars."

"I suppose we've been inspired by that game all along in how we develop the series," says Ono. "Most game series have new sequels which build upon the design of the previous titles, but *Street Fighter II* really started over from what was created in the original *Street Fighter*. When it came time to move to *Street Fighter III* and Street *Fighter IV*, we really started from scratch each time," the producer elaborates. "It was *Street Fighter II* that started this pattern in motion and now, as I've said many times, *Street Fighter V* is another reset of the game and brings a new roster and new design. So you could say that what *Street Fighter II* did over 20 years ago – wait, it's almost 30 years now! – has continued to influence us."

We get the feeling it'll continue to do so for many more years to come, too. ✱



CAMMY

SPECIAL MOVES
(SU) Spiral Arrow: ↓↘→ P
(SU) Cannon Spike: →↓↘ P
(SU) Axle Spin Knuckle: ←↙↓↘→ K
(ST) Hooligan Combination: ↙↓↘→↗K, then P
(ST) Fatal Leg Twister: ←(Hold),→ P (after Hooligan Combination, near head)
(ST) Cross Scissor Pressure: ←(Hold),→ P (after Hooligan Combination, near body)
SUPER MOVE
(ST) Spin Drive Smasher: ↓↘→↓↘P

Conversion Capers

We take a look at all the ports of Capcom's arcade smash hit

MEGA DRIVE

■ As with the PC Engine version, this is a port of *Champion Edition*, however, it also adds *Turbo* content. The three-button pad is usable (you use Start to switch between punches and kicks) but special moves are harder to pull off compared to the superior SNES controller. Plug a six-button pad in, though, and it's virtually on par with *Super Street Fighter II Turbo* on SNES.

SUPER NINTENDO

■ Its been superseded by later SNES *Street Fighter* ports, but the original conversion still holds up surprisingly well. It's very close to the arcade game in style (although there is a lot of missing content) and the controls are tight and responsive without the need for extra pads. Little wonder it was deemed the definitive home version of the game upon release.

T. HAWK

SPECIAL MOVES
(SU) Condor Dive: (In air) (All) P
(SU) Tomahawk Buster: →↓↘K
(SU) Mexican Typhoon: (360) K
SUPER MOVE
(ST) Double Typhoon: 2x(360) K

» This beautiful sunburst is your reward for knocking out an opponent with a Super Combo.

ZX SPECTRUM

■ The Spectrum version looks great, but it's saddled by an astonishingly bad multi-load system. Like the other 8-bit ports it does cater for two-button sticks, but the base version — fire and forward for punch and fire and back for kick — is very hard to use.

ATARI ST

■ The Atari ST version suffers from all the same issues as the Amiga but manages to be even worse. The animation is particularly bad and the game is slower than its Amiga counterpart. It's slightly easier to pull off special moves, but it's still a poor port.

COMMODORE 64

■ The C64 version is quick, but that's pretty much all it has going for it. It's a buggy version of the game, with frequent odd pauses during play. Worse still, your characters occasionally get stuck on the backgrounds.

FEI LONG

SPECIAL MOVES

(SU) Rekka Ken: ↓↘→ (perform up to 3 times)

(SU) Shien Kyaku: ←↓↙

(ST) Rekku Kyaku: ↙↓↘→↗

(ST) Shuu Kubi Raku: ←→(M/H) (in air)

SUPER MOVE

(ST) Rekka Shinken: ↓↘→↓↘→

SHARP X68000

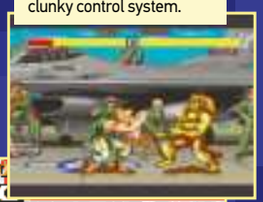
■ This is another *Champion Edition* port and is virtually arcade perfect, with only slightly different music. Control-wise it had the same issues are other home computers, but that's solved with a joystick adaptor. The only thing that ruins it is the constant swapping between four disks on certain systems.

PC ENGINE

■ When you consider the machine, this is a truly astonishing port and in some ways more impressive than the SNES version. It's rubbish to play with a standard pad, but luckily there's the option for six-button support.

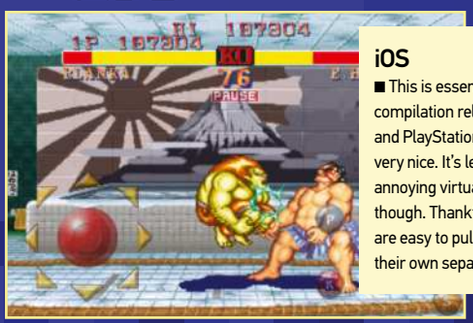
DOS

■ The DOS version looks good, and it miles better looking that its Amiga and Atari ST counterparts. Even the animation is decent, although the music is nothing to write home about. It's still ruined by a clunky control system.



GAME BOY

■ This is a weird hodgepodge edition of games up to *Super Street Fighter II Turbo*. It's very well detailed for a Game Boy game with great looking sprites. It's missing Dhalsim, Vega and E. Honda and only has two buttons. Cleverly though, it changes the strength of kicks and punches based on how long you press the buttons for.



iOS

■ This is essentially the compilation released on Saturn and PlayStation, meaning it looks very nice. It's let down by the annoying virtual buttons and stick, though. Thankfully special moves are easy to pull off as they have their own separate buttons.

AMIGA

■ Despite some odd colouring the Amiga version looks authentic. But that falls apart once you see it moving, due to jerky animation and poor scrolling. Musically it's terrible, and it's hampered by the same poor control system found on the 8-bit conversions.

XBOX, PSP, PS2

■ These are emulated versions of the arcade versions. PS2 and Xbox owners want *Capcom Classics Collection Volume 1* with *Street Fighter II*, *Champion Edition* and *Street Fighter II Turbo: Hyper Fighting*. PSP owners need *Capcom Classics Collection Reloaded*.

AKUMA

SPECIAL MOVES

(ST) Gou Hadoken: ↓↘→

(ST) Zankuu Hadoken: ↓↘→ (in air)

(ST) Shakunetsu Hadoken: ←↙↓↘→

(ST) Gou Shoryuken: →↓↘

(ST) Tatsumaki Zankukyaku: ↓↙←

(ST) Kuchu Tatsumaki Zankukyaku: ↓↙← (in air)

(ST) Ashura Senku (Forward): →↓↘(all) or

(ST) Ashura Senku (Backward): ←↓↙(all) or

MASTER SYSTEM

■ Based on *Champion Edition*, Master System *Street Fighter II* is clearly cut-down. Dhalsim, Zangief, E. Honda and Vega are missing. It's graphically impressive and has authentic tunes, but is let down by a distinct lack of buttons and poor controls.

MOBILE

■ While the graphics are accurate, it's stiff and sluggish to play, and playing on a keypad makes it incredibly difficult to pull off special moves. An impressive effort, but a poor game.

PLAYSTATION/SATURN

■ As you'd expect, the versions released on *Capcom's Street Fighter II* and *Capcom Generations* collections are near perfect, with the Saturn ports winning bonus points due to having the better pad.

THIS GAME
HAS WORKED
140 DAYS
WITHOUT AN
ACCIDENT
EXIT

Ultimate Guide: Lemmings

When a game disavows responsibility for loss of your sanity, hair or sleep, it's easy to dismiss it as hyperbole – but for Lemmings, it was closer to an understatement. Nick Thorpe looks back on DMA Designs' critter-saving classic

If you ever imitated another child's bad behaviour when you were young, you were almost certainly asked: "if your friend jumped off a cliff, would you do that too?" Of course, if you were like us you'd claim that you would in order to remain logically consistent, an act of dishonesty which only further frustrated the adult and saw us frogmarched to the nearest cliff. But if you were a lemming, that statement wouldn't be a lie – those guys just love chucking themselves off objects. They also love wandering into jets of flame, drowning, and generally doing very un-clever things. Not real lemmings, mind – their suicidal urges are something of a misconception – but the critters found in DMA Designs' *Lemmings*.

The 'save-'em-up' premise behind the game plays into the popular misconception that lemmings are suicidal creatures. A large group of tiny lemmings will be released into the stage at varying intervals, and continue to walk aimlessly forward until they either hit an object and turn around, or are given a job by the player. Of course, most of the time this aimless wandering won't just get them nowhere near their goal, but will quite often lead them into all manner of horrible situations, be it plummeting off a cliff, walking into jets of flame, drowning or simply becoming trapped in a situation they can't escape. This is where the job roles come in – these allow the lemmings to forge a path towards the goal by smashing up the scenery, climbing it, influencing ▶

CLIMBER

FLOATER

BOMBER

BLOCKER

BUILDER

BASHER

MINER

DIGGER

Q&A MIKE DAILLY

R&D and level design, Amiga version

The walking animation for *Lemmings* was the product of a self-imposed restriction of 8x8 pixels. Do you think this particular approach is useful in aiding creativity?
Actually, it wasn't a self-imposed limitation, it was purely technical. In the old days, you always wanted to draw things using the power of two sizes (8, 16, 32, 64 and so on), so the next size down from 16x16 was 8x8. So it was to fit within 'standard' limitations that started all this – as was normal then. As it happened, only the width mattered on the Amiga, so the resulting size of 8x10 was fine as well.

What was the most difficult aspect of creating *Lemmings*?
There were a few issues. Making the lemmings walk and move exactly, binding feet to ground rather than sliding, actually getting collision working on a pixel basis was tricky – and in fact, *Lemmings* never worked totally for 'steel' things. On console it was a nightmare of the highest order. The five screen bitmap was utterly horrible, and I am still amazed they managed to port it to the Game Boy!

***Lemmings* is known for its difficulty. Did any of the levels keep you puzzled for ages?**
Nope. By the time we were churning out levels, we were all so good very at it, we could solve any level in seconds – pretty much. The only tricky bit was actually doing the level, but even then most would be solved in only a few attempts.

Which of your levels is your favourite and why?
It's Hero Time is my all time favourite, because it had a little bit of lateral thinking, and was far from obvious as to how you do it. Lots of people – including testers at Psygnosis – got utterly stumped on it, which makes me happy.

With the benefit of hindsight, is there anything about *Lemmings* that you would have done differently at all?
Tech-wise, *Lemmings 2* solved everything as far as console went, but game-wise… it would have been nice with a background.

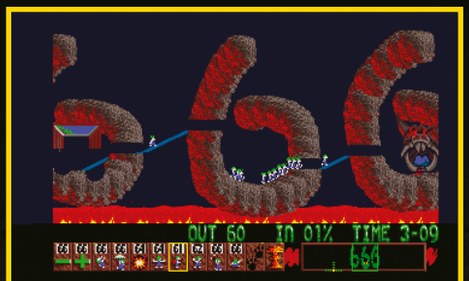
Have you ever had any memorable interactions with *Lemmings* fans?
We would occasionally get sent odd *Lemmings* items. Pillows, drawings – even wood carvings! I do meet some at shows, and that's always fun. What gets me most though, is the love of the game even after all this time. Seeing weird *Lemmings* 'things' happening – like the group that walked around a computer show one after the other dressed as lemmings – being Blockers and the like. That makes me smile!

▶ the direction of other lemmings and surviving otherwise deadly situations. Each level has a set quota of idiotic lemmings that must be saved, as well as a stress-inducing time limit within which it must be done.

Despite the fact that *Lemmings* is a somewhat complex game, it provides an excellent example of a design principle that has fallen out of fashion over the years – education by level design. The early stages in the 'Fun' difficulty mode offer very simple puzzles that perfectly demonstrate the function of each job role as well as various objects within the game. While a short sentence might be given as a hint, the game doesn't hold the player's hand by any means. Even novice players can experience some degree of success, providing a crucial feel-good factor that hooks players on the game early. This also means that by the time players hit the stages where the challenge really begins to ramp up, they're well beyond the point of questioning how they should be playing, and only have to worry about finding a solution. While the difficulty curve isn't perfectly smooth, *Lemmings* does a great job of matching difficulty to player experience.

The genius of *Lemmings* is that while stage design provides some of the challenge, the rest is delivered by simply restricting the resources you're given to complete a challenge. A great example of this is found in the difference between an early level titled, Builders Will Help You Here, and the game's first truly challenging stage, Postcard From Lemmingland. The former stage gives you nothing but builders, and the solution to the stage is extremely obvious even to novice players. It's even possible to save every lemming, simply by having them build a stairway out of the pit that a few will inevitably tumble into. Postcard From Lemmingland provides exactly the same terrain, but drastically alters your options, ▶

» Early stages introduce players to the various jobs while providing little peril, which introduces a gentle difficulty curve.



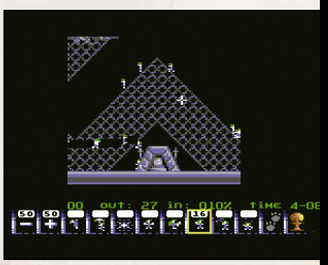
» In a famous bit of overreaction, the 666 level was excised from certain conversions.

» Once you've set a path to the exit, watching the lemmings walk to it can become rather hypnotic.

CONVERSIONS

BEST — Covering every version would take the whole magazine, so we've picked the biggest hits and misses — **WORST**

COMMODORE 64



■ Despite utilising a multiload system, the game impressed many by flinging around up to 50 lemmings, as well as including a massive 100 stages – surpassing the Spectrum and Amstrad versions, meaning this is the one to go for on 8-bit computers.

PLAYSTATION 2

■ Based on Team 17's PSP version of the game, *Lemmings* for the PS2 is an updated version of the original game, with all 120 original stages plus 36 brand new ones. The star attraction is the EyeToy mode, which provides users with some surprisingly smart motion controlled stages to play.

MEGA DRIVE

■ The Mega Drive version isn't the most accurate conversion, in part because of limitations on the width of levels, and it is missing some of the original Amiga stages. However, Sunsoft managed to make it up to Mega Drive owners with a number of exclusive stages, bringing the grand total up to a staggering 180.

ATARI LYNX

■ While some of the stage designs have had to be squashed vertically in order to fit the lower resolution, the Lynx conversion of *Lemmings* is one of the best, which should be expected as it was handled in-house at DMA Design. Of particular note is the ability to fast forward play, an appreciated inclusion.

MASTER SYSTEM

■ A stunning job was done with this 8-bit conversion. Pixel destruction made it into the game intact despite the constraints of the hardware. The game also contains 120 levels, though some have had to be simplified, as well as some new music alongside the original tunes we enjoyed so much.

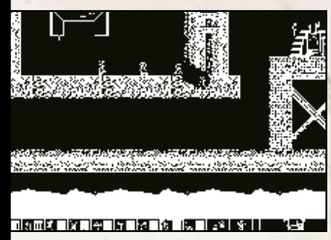
GAME BOY COLOR

■ This should be an improvement over the surprisingly decent monochrome version, as it boasts the *Oh No! More Lemmings* levels and colour graphics. Unfortunately, it has major issues – poor scrolling being the primary complaint. However, the most unforgivable sin is the omission of the excellent original music.

NES

■ The NES struggles to provide a good game of *Lemmings*. 20 levels are missing and only a paltry 14 lemmings can be active at any one time. However, the real issue is the control scheme, which requires you to confusingly hold the B button to select skills rather than just selecting from the menu.

MAC



■ In many respects, playing *Lemmings* on a Mac is a surprisingly good experience. The higher resolution graphics are particularly good. Unfortunately, some stages – notably Pea Soup, become almost impossible due to your inability to distinguish between objects and the dangers.

AMIGA CD32

■ It's the Amiga version of *Lemmings* – but on CD! This sounds fantastic, but what does it mean in practice? Not a lot. Two-player mode is gone, and there are no enhancements for the new format. Now consider that this version arrived in 1994, well after the sequel, but still came out at full price...

PLAYSTATION

■ You'd expect that a machine as powerful as the PlayStation should be able to do a perfect version of *Lemmings*, right? Unfortunately, the PlayStation version of *Lemmings* and *Oh No! More Lemmings* is actually missing stages and doesn't use the original graphics. A missed opportunity.

» Some traps such as flame jets initially appear as level decoration, before taking a more active role as hazards.

providing only a single builder and a variety of other skills to get the job done. Suddenly, the stage becomes a lot more difficult and requires some very creative uses of skills to make it through – for example, you'll need to figure out how to turn a lemming around without any blockers.

If that sounds frustrating, you're not wrong – *Lemmings* is a game which is inherently frustrating, and as repeated attempts to clear tricky levels bear no fruit you may find yourself pulling your hair out. However, the game has a number of excellent features which bring down your stress levels. The first is the fact that the lemmings themselves are so cute. Being comprised of only a few pixels each, you wouldn't expect them to have a great deal of personality, but the animation really draws you into their plight as you watch a lone lemming bravely climb a tall object or mine a path for the others. The simple act of watching so many of them at once can in fact be rather mesmerising, as they travel the undulating terrain.

Then, of course, there's the music. Originally composed by Brian Johnston, a number of replacement tracks were added by Tim Wright at the request of Psygnosis, which had become worried about music copyright. The result is that the game uses many popular public domain songs, including classical compositions and staples such as *London Bridge Is Falling Down*.

» In most versions, you can quit without nuking – but that doesn't carry the same satisfaction.

» Complex designs posed problems for coders when converting *Lemmings* to other systems.

Q&A RUSSELL KAY

Programming, PC version

How did you end up working on the PC port of *Lemmings*?
Well Dave Jones and I were working on Spectrum games together before he started DMA Design and bought his Amiga, so I graduated from the Spectrum to the PC (the processors are similar) and did PC ports for DMA, so it became my machine. When *Lemmings* came around, I did the original demo on the PC but I had my finals at University to do before I could give the game my full attention, so Dave started the game and I returned (having finished my finals) and got going on the PC port.

What technical challenges did you face?
Well there were a few: a lack of PC hardware support, the Amiga had a Blitter, I had a poor CPU; the lack of colours, initially we were doing EGA only, though we eventually did a VGA version; there was a shortage of memory, you could only reliably get around 512KB of main RAM on a PC back then; the was also a myriad of PC types out there, with varying RAM, graphics capabilities and disk sizes. We were essentially doing four different versions (EGA/VGA, CGA and Tandy), and having to cope with a lack of two mice, for the much lamented lack of two player mode, I'm still sore about that one…

We shared a lot of code back and forth with me doing some of the skill types (Walker, Climber that sort of thing) and the basic structure of the code is the same, I had to do a lot more with the various components that the PC had, with an attempt at interrupts to get a reliable raster split – I really wish I had not done that…

How do you feel it compares to the Amiga version?
I am very pleased with it, it holds up really well over time and it worked very well for PCs of that era.

What's the best version of *Lemmings* and why?
I think they both hold their own – over time I see that the PC version is the best known one, mainly because it had the largest audience. It is only in Europe that the Amiga one is well known, though there are still a lot of PC users over here.

Why do you think the game remains so popular with gamers?
Simplicity – the gameplay is easy to get, it is simple to pick up and the game itself has a good learning curve (we worked hard at that), so it is easy to get into…

Finally, we'd like to hear an anecdote of your time working on *Lemmings*.
At the time when we were looking for a publisher everyone we showed it to loved it, but thought it was too much of a risk to publish it. Even Psygnosis did initially, it was only later that Dave managed to persuade Ian Hetherington that it was worth the risk!

Not only was the result catchy, but weirdly effective in reducing stress – after all, it's hard to stay mad at a game which is playing *How Much Is That Doggy In The Window*. The sound effects also added to the cuteness of the lemmings, as they had high-pitched voices which would play at the beginning of each stage ("let's go!") and when you needed to make them explode ("oh no!").

Sorry, did we say 'needed' to make them explode? That might have been a tad disingenuous, because while it's certainly true that you'll need to use the occasional bomber to blast through some of the game's 120 levels, most of the time exploding lemmings were simply the result of player frustration. When a stage is lost, or you have a few blockers that need disposing of, or even when you just feel like it, the nuke button is your best friend. A double-click on it will activate a five second countdown for every lemming on the screen and result in a screen full of violently shaking critters, followed by a round of explosions that would please even Michael Bay. While this has become the default option for quitting a stage, the truth is that most versions of *Lemmings* actually have a non-nuclear option to quit the stage – they're just almost never used because nuking is far more fun.

Speaking of rarely-used options, one of the best features of the Amiga original was the two-player mode of *Lemmings*. This took place across 20 specially designed stages and saw players competing to rescue the most lemmings. While you could only assign jobs to your own lemmings, the competitiveness of the two-player mode arose from the fact that you could direct your opponent's lemmings into your own base, effectively stealing them. It's a fantastic design but it was often difficult to replicate on other systems, and is usually the first aspect of *Lemmings* to be scrapped during porting.

» Often, your main problems is keeping the other lemmings safe while letting the useful ones do their jobs.

Q&A TIM WRIGHT

Music, Amiga version

How did you originally go about composing the music for *Lemmings*?

Firstly, I had the basic premise of adapting well-known hummable folk tunes, to replace existing tracks that were problematic in terms of copyright, like the theme from *Batman* for instance.

Secondly, I was a dab hand at Karsten Obarski's Soundtracker and the follow-up called NoiseTracker, but I was told to write the music in a supplied tracker program – Linel's Sound FX if I recall correctly.

Thirdly, there were tight restrictions in terms of memory, permitted musical effects within the editor (i.e. none) and only three channels so that there was always one channel free for sound effects.

Brian Johnston had composed all of the music at that point, but they'd removed several of them for legal reasons. Some of his tunes remained, and they're also well remembered… like *Ten Green Bottles*, *The Can-Can Theme*, *How Much Is That Doggie In The Window?*, and his original tunes too.

The memory constraint meant that there wasn't much room to have samples per track, so there was a bit of instrument sharing. However, this eased up a bit towards the end and I was asked to create cover versions of well known Psygnosis music to be included within the game – tracks from games like *Menace* and *Shadow Of The Beast* – tricky stuff when you've only got three channels and a lot less memory than the originals.

I kinda chose which classic songs to cover at random… whatever popped into my head really; old folk melodies, Christmas hymns and so on. There were some original compositions in there too, just to spice things up a little, along with some mash-ups where I'd blend two tracks, or adapt known themes with my own melodies.

How long did it take and what problems (if any) did you encounter along the way?

I recall it took around a week or so, as there was a pressing deadline. But then I got a few more days to create the Psygnosis game cover versions I mentioned earlier. I didn't really encounter any problems during the composition phase, aside from trying to get the most out of the samples I shoehorned in to the available memory. There are well known tricks you can use with the likes of NoiseTracker, but none of that was allowed... I could only trigger notes, so it was hard work in that respect.

Were you involved with the sound effects of the game and who supplied those voices?

I was brought in towards the end of the project, so the sound effects were all done and dusted at that point. I believe the original *Lemmings* were voiced by Scott Johnston's Mother, and then played back at a much faster speed to give them that classic chipmunk sound.

Why were there so many remixes of classic tunes?

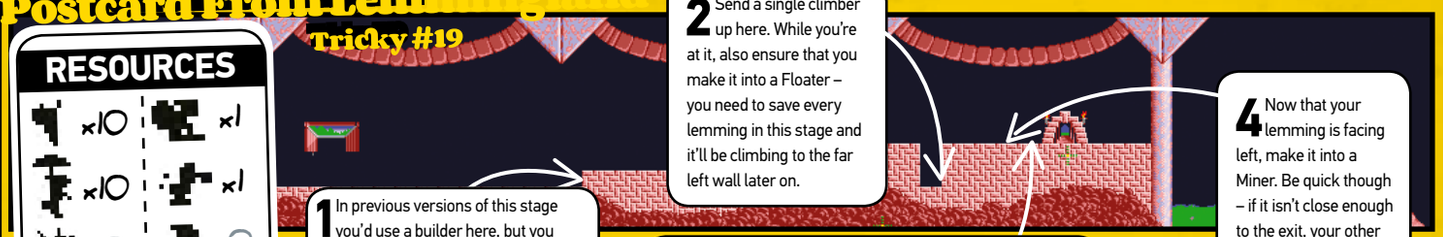
I think Psygnosis were quite keen on the idea that the tunes were rip-offs from TV shows, and other well known folk or public domain tracks. But they didn't want any nightmares in terms of copyright and law suits, so I suggested we just stick to well known music that was out of copyright. So there were some riffs taken from folk tunes, classical music, religious hymns and so on.

TRICKY TERRAIN

These are some of the most infamously difficult levels Lemmings has to offer, alongside some helpful tips

Postcard From Lemmingland

Tricky #19



RESOURCES

×10		×1	
×10		×1	

1 In previous versions of this stage you'd use a builder here, but you only have access to one now. Use your Basher instead, to clear a path to the pit for all of your lemmings.

2 Send a single climber up here. While you're at it, also ensure that you make it into a Floater – you need to save every lemming in this stage and it'll be climbing to the far left wall later on.

3 This is the trick of the stage. Use your Digger straight away before the exit, and then assign it as a builder immediately. It'll reach the side of the small hole it just dug and turn around.

4 Now that your lemming is facing left, make it into a Miner. Be quick though – if it isn't close enough to the exit, your other lemmings won't be able to reach the tunnel to freedom.

Triple Trouble

Taxing #26

RESOURCES

×10		×12	
×10		×10	
×10		×10	
×10		×10	

1 With your first lemming, dig a hole slightly to the right of where it landed – this will ensure you save the ones at the top without any undue worries.

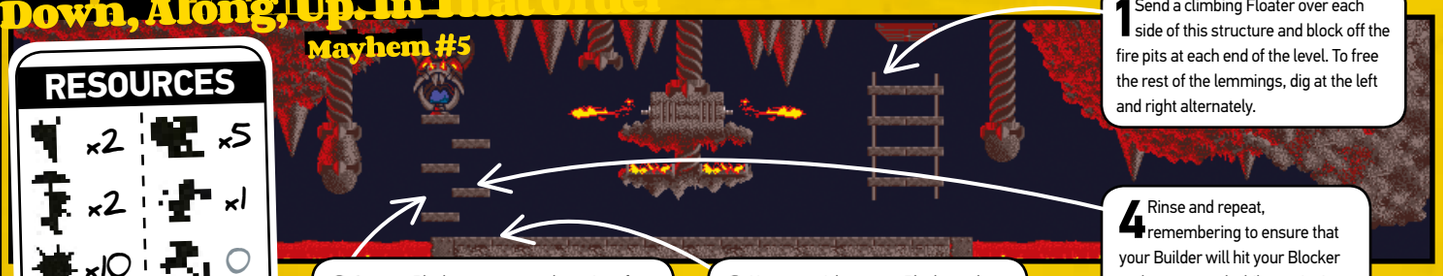
2 Start a Builder off in this corner, and keep it in action until it reaches the stone circle. To protect your other lemmings, dig a hole beneath where the new lemmings are falling in.

3 Once your Builder has reached the stone circle, have him bash his way through it and create a path to the exit.

4 Use a Builder to repair the hole you dug earlier, completing the path. Now all you have to do is repeat this process on the other side!

Down, Along, Up. In That Order

Mayhem #5



RESOURCES

×2		×5	
×2		×1	
×10			
×10		×5	

1 Send a climbing Floater over each side of this structure and block off the fire pits at each end of the level. To free the rest of the lemmings, dig at the left and right alternately.

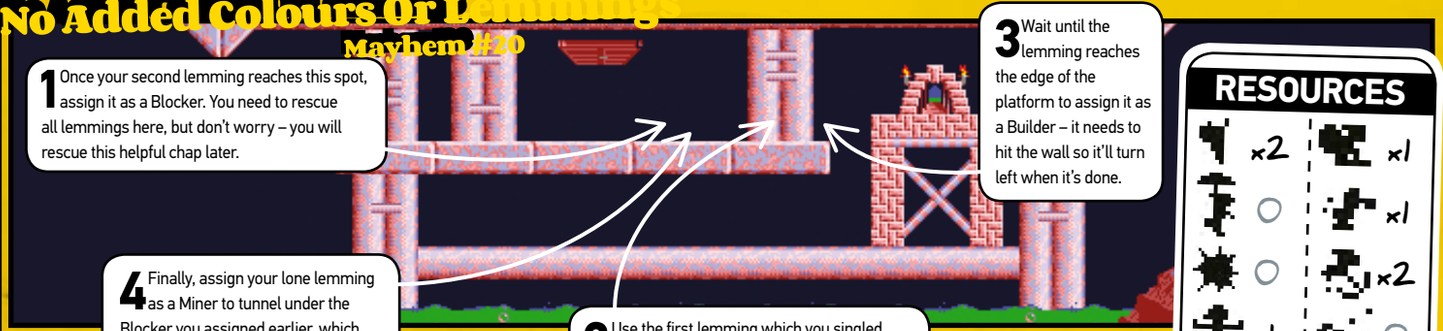
2 You may wish to use a Blocker to keep a small group of lemmings aside here for visibility – ten should do. Have a Builder work its way up to this first ledge.

3 Create a Blocker to stop your lemmings from going over the edge, then start a builder towards hitting the Blocker. It'll turn around mid-build and keep on working!

4 Rinse and repeat, remembering to ensure that your Builder will hit your Blocker and turn around while continuing to build. Free any remaining lemmings by removing Blockers and finally, exhale!

No Added Colours Or Lemmings

Mayhem #20



RESOURCES

×2		×1	
		×1	
		×2	
×1			

1 Once your second lemming reaches this spot, assign it as a Blocker. You need to rescue all lemmings here, but don't worry – you will rescue this helpful chap later.

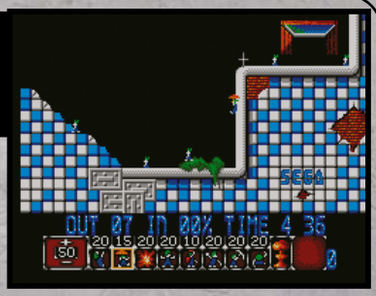
2 Use the first lemming which you singled out from the pack, bash through this wall to create a path towards the exit.

3 Wait until the lemming reaches the edge of the platform to assign it as a Builder – it needs to hit the wall so it'll turn left when it's done.

4 Finally, assign your lone lemming as a Miner to tunnel under the Blocker you assigned earlier, which will free it. Once it's done, make it into a Climber and you're golden!

Q&A DOMINIC WOOD

Programming, Master System and Game Gear



Had you played *Lemmings* before starting work on the conversion? If so, what did you think of the game?
I had played it (PC version I think) and I enjoyed the game, although I wasn't addicted. My friend's granny used to play it apparently! It's one of the first crossover casual games. When I was developing I didn't have time or the eye sight to play games in my spare time as I didn't have much. However when we had the contract we used to play it a *lot*.

What were the major challenges Probe faced in converting *Lemmings* to Master System/Game Gear?
Firstly, how to build a destructible/buildable landscape with a character based screen system with a limited number of characters, that was interesting. Secondly, how to get that mouse feel with a game controller. I spent a lot of time and effort on that, adjusting the acceleration/deceleration and coding immediate response with a change of direction, it was commended in the reviews. My aim was to beat the team working on the Game Boy version.

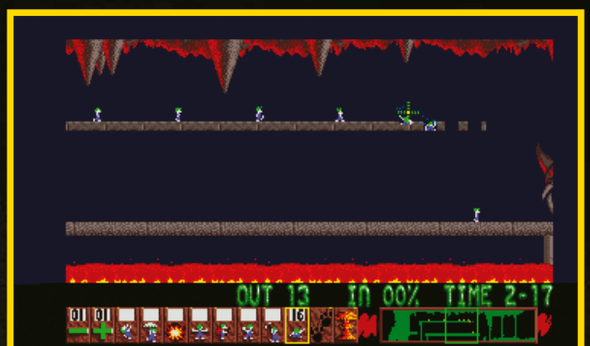
How much contact did Probe have with DMA/Psygnosis during the conversion process?
Not a lot from what I remember, I guess the original was coded by another external team, it would have been good to have hooked up with original dev team. But in those days, conversions were passed out and you certainly wouldn't be involved. Sega Japan sent a funny email on something we missed a day before production; it was completely true but would have meant a complete 100 level re-test so we didn't implement it.

Why do you think the conversion went so well?
Great game! We had a good team Neil Young (EA, ngMoco, N3twork) managing although I don't remember him having to chase us that much, it was also the first game Rob O'Farrell worked on as test, he's a big cheese at EA UK now.

▶ The popularity of *Lemmings* during the early Nineties was enormous. The initial Amiga release was followed by conversions for what seemed like every format available, from the 8-bit computers and consoles to the rather more exotic likes of the CD-i, SAM Coupé and Sharp X68000, and even the new generation of consoles such as the 3DO. Despite the fact that we've singled out some versions of the game for praise and criticism later in this feature, it's worth noting that the core experience is so strong that you'll probably have fun with any you care to pick up. The popularity of the game was accompanied by massive critical success, with many reviewers recognising the clever puzzles and addictive qualities of the game.

An expansion pack titled *Oh No! More Lemmings* soon followed, but was much less widely available than the original game, appearing on PC, Atari ST, SAM Coupé, Macintosh and Acorn Archimedes. The levels were also present in the Game Boy Color, PlayStation and Mega Drive versions of the game in varying number. Also of interest to *Lemmings* enthusiasts are the excellent Christmas *Lemmings* demos given away on magazines, which provided brand new winter-themed stages for players – a rather excellent Christmas present in itself.

"As well as the addictive, multitasking game play, ingenious use of physics and black humour we (the artists) loved how the DMA guys managed to cram so much character and fluid animation into an 8x8 pixel figure, it really brought the game to life. A lost art these days" Jeff Bramfitt, Psygnosis



» We All Fall Down is a level that returns repeatedly throughout the game, getting harder each time.

Lemmings is still a unique game – even other save-'em-ups like *Chu Chu Rocket* resemble it only tangentially – and one which ranks alongside the likes of *Tetris* as one of the few games that can claim to have near-universal appeal. At a time when games were marketed almost exclusively to young males, *Lemmings* found popularity with all audiences. The cute characters were appealing in a way that was easy for anyone to understand, and the game gently eased players in, so even if you'd never played a videogame before you could probably get the hang of *Lemmings*. And once you were in, you were hooked – *Lemmings* is a strong game design which could keep players playing long into the night. In fact, we think we can hear an enthusiastic cry of "let's go!" right now – though that might just be our addiction kicking back in. Okay then, one more go... ★

TOP 25 GAME BOY GAMES

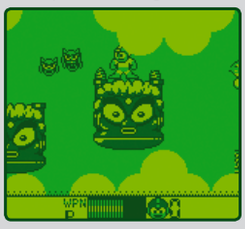
retro GAMER READERS' CHOICE

Your votes have been counted and the standings are final – these are the very best games for Nintendo's monochrome masterpiece, as chosen by **Retro Gamer** readers

25 MEGA MAN II

■ **DEVELOPER:** BIOX
■ **YEAR:** 1991 ■ **GENRE:** SPORTS

In a surprising opening to our list, series creator Keiji Inafune's least favourite of the Game Boy *Mega Man* games proves to be your favourite. The regular handheld developer for the series took a back seat for this release, resulting in a game which felt different from the rest of the Game Boy titles. The game combines elements of the second and third NES *Mega Man* games, but thankfully for new players the difficulty was lowered.



24 MYSTIC QUEST

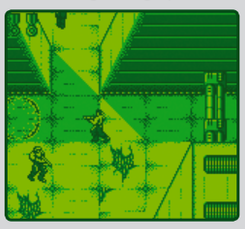
■ **DEVELOPER:** SQUARE
■ **YEAR:** 1991 ■ **GENRE:** ACTION-RPG

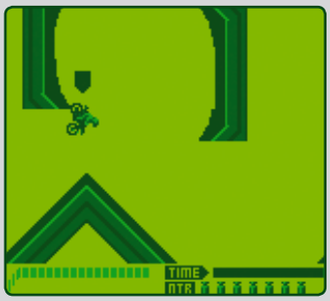
While it was known as *Final Fantasy Adventure* outside of Europe, *Mystic Quest* is only loosely based on Square's classic series, ditching many of the *Final Fantasy* traditions such as multi-character parties and turn-based combat. Instead, *Mystic Quest* is a great little action-RPG in which your goal is to stop the Mana Tree from falling under the control of the Dark Lord of Glaive. Today the game is best known for being the precursor to the SNES classic *Secret Of Mana*, which led to a Game Boy Advance remake titled *Sword Of Mana* in 2003.

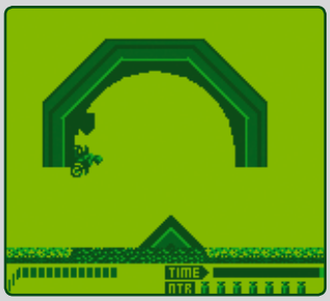
23 PROBOTECTOR

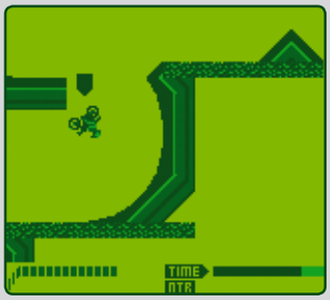
■ **DEVELOPER:** KONAMI
■ **YEAR:** 1991 ■ **GENRE:** RUN-AND-GUN

Known as *Operation C* in North America, *Probotector* fans can't have been disappointed by this fantastic portable outing, which retains the frantic action of the series' arcade and console outings. Alternating between side-scrolling and top-down sections as in *Super Contra*, the blasting is hugely enjoyable in both views. Unsurprisingly, given the game's heritage, it's also a real challenge. One of the Game Boy's best available blasters.







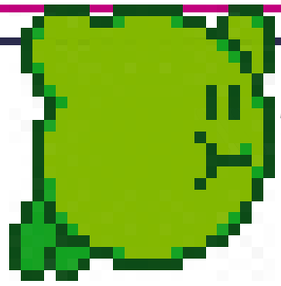


MOTOCROSS MANIACS

DEVELOPER: KONAMI
YEAR: 1989 **GENRE:** RACING/PLATFORMER

22 ***Motocross Maniacs* might** not have the best visuals on the system, but it's a blast to play. Combining the motocross gameplay of titles such as *Kikstart* with platform stages, *Motocross Maniacs* presents players with a variety of hills, loops and ramps, requiring excellent balancing and judicious use of nitro to conquer, as well as collection of the T tokens that refill your time bar. Once you've managed to clear stages, beating your best times is the challenge. It's a simple formula, but the fantastic stage design makes it a joy to replay.

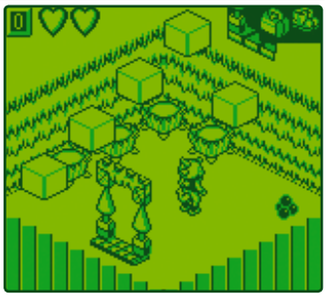
As an interesting aside, *Motocross Maniacs* eventually resurfaced on the compilation cartridge *Konami GB Collection Vol 3*, under the new name *Bikers*. It's easy to miss due to this bizarre decision, so if you're looking for a copy you'd do well to keep an eye out for this release too – it's got the Game Boy Color branding, but will still work on monochrome systems.



MONSTER MAX

DEVELOPER: RARE
YEAR: 1994 **GENRE:** ISOMETRIC ADVENTURE

21 **It doesn't enjoy** the popularity of *Head Over Heels*, but Jon Ritman's isometric Game Boy adventure is one of your favourite games on the system regardless. *Monster Max* sees the titular protagonist seeking to stop the villainous Krond from banning all music. Taking cues from the 8-bit classic, the game sees Max venturing through a mammoth 29 stages, each filled with platforming and puzzle elements as well as a variety enemies to avoid.



Monster Max received excellent reviews, but publishing problems caused the game to be delayed for a long time, allowing excitement to dissipate. Its release during the system's mid-Nineties slump also hurt, causing sales to fall below expectations and leaving the game as an oft-forgotten classic. We can't help but feel it would have done better in the voting if it had been released during one of the system's boom periods.

METROID II: RETURN OF SAMUS

DEVELOPER: NINTENDO
YEAR: 1994 **GENRE:** ACTION-ADVENTURE

20 **While *Metroid II* had** divided fans over the years, Samus Aran's second adventure garnered enough love from the voters to appear in your top 25. The game takes the traditional *Metroid* approach to game design, with a very large stage in place of multiple smaller ones. Your goal is to locate and destroy *Metroid* creatures, with a detector tracking the number remaining in the bottom-right of the screen. Unlike in other *Metroid* releases, destroying Metroids progressively opens up new sections, allowing for further exploration.

While the game doesn't utilise *Metroid*'s usual trick of providing natural barriers to progress by utilising a series of progressive upgrades, which puts some fans off, the game actually features a number of improvements over the NES original that would become standard. Samus is now able to crouch and fire, and power-ups such as the spider ball would later return in the *Metroid Prime* series. *Metroid II* boasts some large, detailed sprites too – Samus is absolutely huge! However, while some appreciate the design, others find it makes the game feel rather too cramped. There's still a lot to like about *Metroid II*, so revisit it some time.

DUCKTALES

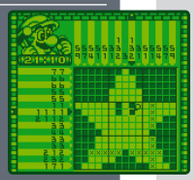
DEVELOPER: CAPCOM
YEAR: 1990 **GENRE:** PLATFORMER

19 **Scrooge McDuck's star** turn remains one of the better licensed platformers out there, thanks to Capcom's wise decision to redesign the stages of the NES game to fit the Game Boy's smaller screen.

MARIO'S PICROSS

DEVELOPER: JUPITER
YEAR: 1990 **GENRE:** PUZZLE

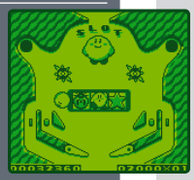
18 **Cross-referencing the** number of marks in a line to make a picture is the goal of this tricky puzzler. The 30-minute timer doesn't appear threatening at first, but quickly becomes a worry as mistakes chip away the minutes.



KIRBY'S DREAM LAND

DEVELOPER: HAL LABORATORY
YEAR: 1992 **GENRE:** PLATFORMER

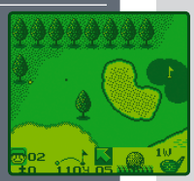
17 **Kirby's debut might** have been a little on the easy side, but the polished platforming and impressive visuals mean that it's fondly remembered by the **Retro Gamer** readership, getting the nod over its 1995 sequel.



GOLF

DEVELOPER: NINTENDO
YEAR: 1989 **GENRE:** SPORTS

16 ***Golf* doesn't try** to do anything particularly fancy, sticking to a top-down view of two 18-hole courses. The game is comprehensive all the same, featuring hazards, a range of clubs and a putting green with slope physics.



KIRBY'S PINBALL LAND

DEVELOPER: HAL LABORATORY
YEAR: 1993 **GENRE:** PINBALL

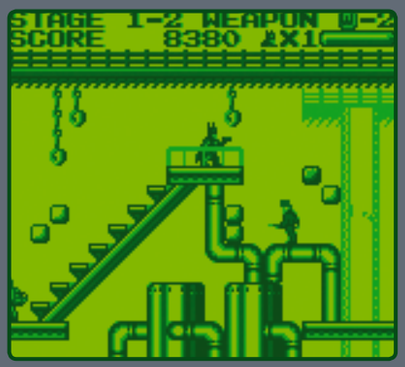
15 **Are RG readers** really into pinball, or was HAL Laboratory just really good at making pinball games? *Kirby's Pinball Land* includes three tables, expanding on the template set by *Revenge Of The 'Gator*.

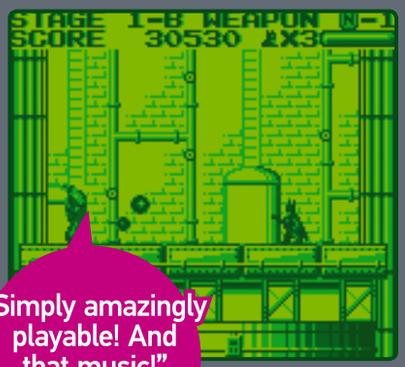
BATMAN

DEVELOPER: SUNSOFT
YEAR: 1990 **GENRE:** PLATFORMER

14 **Sunsoft's Batman sprite** might be the most minimalist representation of the character yet seen, but the game was packed with playability. Released in the wake of the blockbuster film starring Michael Keaton, this platformer is your favourite movie licence on the Game Boy.

The action sees the caped crusader traversing stages while shooting enemies with a variety of weapons, including batarangs, before going one-on-one with a boss at the end of the stage. As is often the case with great licensed games, *Batman* injects some variety by switching genres, with shoot-'em-up action also included. There's nothing hugely innovative about *Batman*, but it's a game which succeeds as a representation of its source material and a very solid, well-designed platform game.





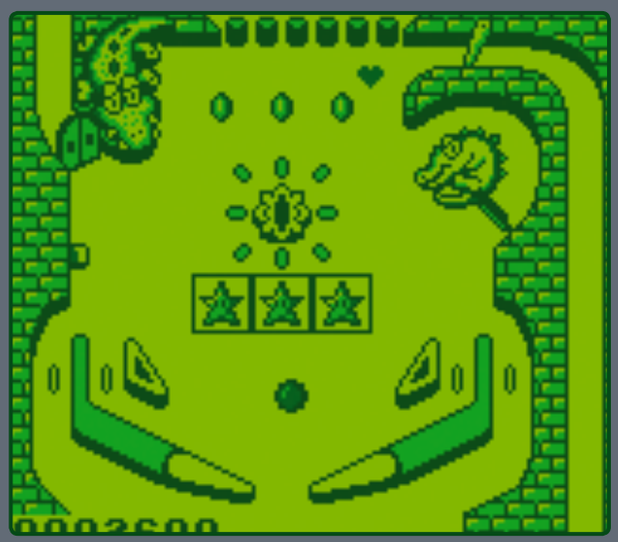
"Simply amazingly playable! And that music!" DUMPSTER

REVENGE OF THE 'GATOR

DEVELOPER: HAL LABORATORY
YEAR: 1989 **GENRE:** PINBALL

12 **HAL Laboratory's first** Game Boy pinball game stirs fond memories for **Retro Gamer** readers, beating the developer's later release *Kirby's Pinball Land* in the voting. It's not hard to see why you love it – it isn't just a great Game Boy game, but a fantastic pinball game which stands tall amongst home console contemporaries such as *Alien Crush*.

Wisely adopting a flick-screen format to avoid the blurring that could cause problems in Game Boy titles, the game features just a single table split across four screens. It's excellently designed though – like the other great videogame pinball tables, it takes advantage of the format by including features that are impractical and impossible on a real table, including the three bonus stages that take place on extra screens. Charming visuals round off the package, with the dancing 'gators giving the game a memorable identity.



GARGOYLE'S QUEST

DEVELOPER: CAPCOM
YEAR: 1990 **GENRE:** PLATFORMER

13 **As a spin-off** of the *Ghosts 'N Goblins* series, *Gargoyle's Quest* sees you taking on the role of one of the game's most irritating enemies. You play as Firebrand, a gargoyle who is fated to defeat the evil king of the land to restore peace – a goal you faintly wish he could have kept for the main series.

The platforming action in *Gargoyle's Quest* is very polished, with interesting stage design that takes full advantage of the gargoyle's natural affinity for walls. Firebrand can stick to them, allowing him to climb up passages and avoid hazards. He's also got the ability to fly for limited periods, easing tricky jumps. Those abilities are thoroughly necessary though, as the difficulty of the main series returns in full effect. *Gargoyle's Quest* is definitely a challenge, but it remains a thoroughly enjoyable one.

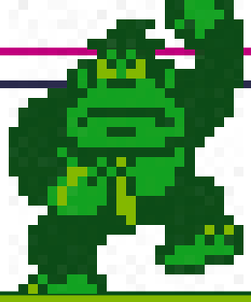
"Mole Mania's friendly exterior conceals a devilish nature, as its difficulty quickly escalates"

SUPER RC PRO-AM

DEVELOPER: RARE
YEAR: 1991 **GENRE:** RACING

11 ***Super RC Pro-Am*** would be great fun on any system, but luckily enough the isometric perspective is perfectly suited to the Game Boy. While it was already present in the enjoyable NES original, this viewpoint goes a long way toward mitigating the problems that the Game Boy's blur-prone screen can cause for racing releases in general. This suitability for the hardware allowed the game to surpass classic multiplayer racers such as *Micro Machines* in the voting, as they simply weren't adapted to the hardware as well.

Super RC Pro-Am brings the fun of radio-controlled racing to the Game Boy. Each track sees you taking on three CPU opponents, with victory determined as much by your ability to manage the hazards of the track as by your cornering skill, thanks to the oil patches, speed-up pads and weaponry strewn across the game's 24 courses. One of the game's most notable features is its multiplayer. Not only does it support two-player via the link cable, it also supports the Four Player Adapter, a perfect addition.



10 MOLE MANIA

■ **DEVELOPER:** PAX SOFTNICA
■ **YEAR:** 1996 ■ **GENRE:** PUZZLE

Having arrived during the mid-Nineties, a relatively quiet period for the Game Boy, *Mole Mania* had the potential to become one of the Game Boy's forgotten classics. Indeed, it's one of the most frequently overlooked games to have benefited from the involvement of Shigeru Miyamoto. Thankfully our readers tend to stick by their systems, resulting in *Mole Mania*'s appearance in the top ten – an accolade it thoroughly deserves.

Your hero is Muddy, a mole who is trying to rescue his wife and children, who have been kidnapped by the local farmer. For the player, this means making your way through a series of top-down puzzle stages, eating cabbage to keep your strength up while avoiding enemies. If your route is blocked on the surface, Muddy can dig underground to open up whole new routes. But digging can cause problems, as certain surface obstacles can't pass the holes created in the process. At the end of each stage, Muddy faces off against a boss in order to rescue a relative.

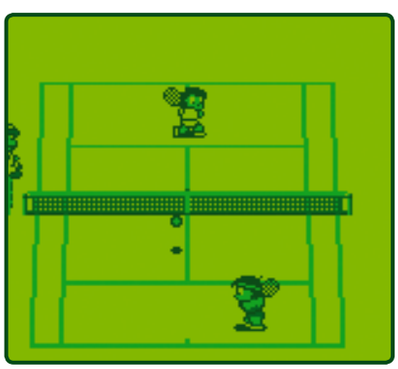
The game's friendly exterior conceals a devilish nature, as its difficulty quickly escalates. Thankfully, the design makes it rather hard to put down. The wide variety of obstacles keeps the game interesting, and the game caters to completists by scoring the performance on each stage out of 100. The game even features multiplayer for those of you lucky enough to have a friend that also owns the game. This mode allows the second player to take control of the farmer, attempting to whack Muddy as he attempts to steal cabbage.

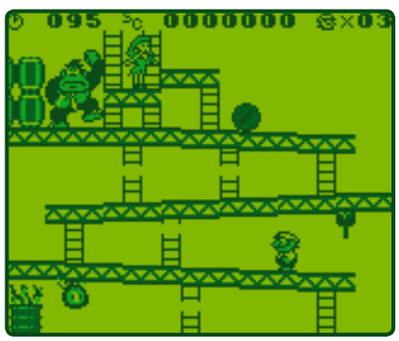
While it's now available via the 3DS Virtual Console service for all of you that missed it the first time around, given that both the 3DS and Wii U have two screens, we'd love to see *Mole Mania* revived for modern systems with Muddy digging between screens. How about it, Nintendo?

9 TENNIS

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1989 ■ **GENRE:** SPORTS

As one of the Game Boy's earliest releases, *Tennis* reached a wide range of players over the years, helping it to ride high in the voting. It's a simple but playable game of tennis, featuring a good implementation of the rules and a full range of shots. While the game doesn't include much in the way of structure, with even a basic tournament mode omitted, the challenging CPU opponents help to pass the time on long journeys and the link cable multiplayer added some welcome longevity. The inclusion of Mario as umpire added some personality to proceedings, greatly boosting the game's memorability.





8 DONKEY KONG

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1994 ■ **GENRE:** PLATFORMER

This impressive re-imagining of *Donkey Kong* starts off simple, with the first four stages taken from the arcade game, leading many to believe it's nothing more than an impressive port of the original arcade game. Nintendo plays a trump card however when the single-screen stages give way as the game turns into a completely different beast. Dozens of puzzle platforming stages await Mario, who needs to find keys to exit each stage. The game also features some great boss encounters with Donkey Kong himself, often returning to the style of the original game. It's also fully compatible with the Super Game Boy.

7 DOUBLE DRAGON

■ **DEVELOPER:** TECHNOS
■ **YEAR:** 1990 ■ **GENRE:** BEAT-'EM-UP

As a technically limited machine with a monochrome display, the Game Boy never had an easy time of arcade conversions. With *Double Dragon*, Technos went for the most sensible approach – tailoring the game to the hardware, rather than pushing the hardware to accommodate the game. Built from the ground up for the Game Boy, *Double Dragon* captured the spirit of the arcade game excellently, creating a fun little brawler in the process.

Stages, enemies and weaponry are all instantly recognisable from the original, but have been retooled for the small screen, something that works extremely well. The first stage of the Game Boy game takes elements from the first two stages of the arcade game, and begins to deviate more heavily from the second stage onwards as platforming elements are introduced. Only the inclusion of link cable co-op could have seen this excellent conversion climb higher.

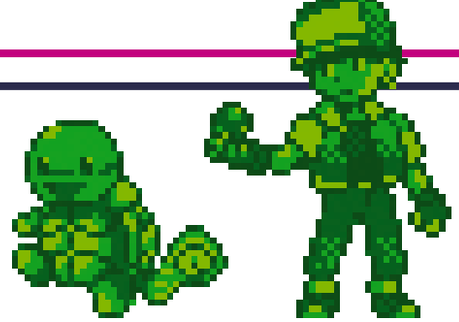
"I'm still playing it some 24 years later. Love it!"
COMBO BREAKER

SUPER MARIO LAND 2: 6 GOLDEN COINS

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1993 ■ **GENRE:** PLATFORMER

6 ***Super Mario Land*** *2* was an impressive technical showcase, highlighting how far Game Boy development had come since 1989. Where the original game featured very basic visuals, a massively increased cartridge capacity allowed *Super Mario Land 2* to feature much more detailed visuals. And while *Super Mario Land* had a linear progression, the sequel allowed players to tackle its six worlds in any order before taking on the game's villain, the debuting Wario.

While it places highly, *Super Mario Land 2* failed to best its predecessor in the voting. Players were divided by the differences, with some favouring the improved visuals of the second game and others preferring the more challenging gameplay of the first.



WARIO LAND: SUPER MARIO LAND 3

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1993 ■ **GENRE:** PLATFORMER

5 **Wario's own platformer** pipped his villainous debut to make your top five. More than a mere spin-off, Nintendo showed its confidence in the quality of *Wario Land* by giving it the *Super Mario Land 3* title. Reflecting his origins as the bad guy, Wario is out to collect as much cash as possible to buy a castle. The contrast is plain to see in play, too – Mario lightly hops on the heads of his enemies, whereas Wario rams into them with a shoulder barge. Overall, an excellent platform adventure that turned a one-shot villain into a star.

POKÉMON RED AND BLUE

■ **DEVELOPER:** GAME FREAK
■ **YEAR:** 1996 ■ **GENRE:** RPG

4 ***Pokémon*****'s design legacy** stretches back to the early life of the Game Boy, with Satoshi Tajiri's first concept documents dating back to 1990, but it didn't arrive until 1996 – and gamers outside of Japan had to wait even longer. But the timing worked out for Nintendo. While the meat of the game was of a high quality, players worldwide dusted off their hardware for the multiplayer features. With each version boasting exclusive monsters, the full collection of 151 Pokémon can only be obtained by trading with other players, making *Pokémon* the best reason to own a link cable.

SUPER MARIO LAND

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1989 ■ **GENRE:** PLATFORMER

3 **It might be** visually simple, but you chose the original *Super Mario Land* over the sequel – and it wasn't close. Mario's Game Boy debut contains the classic gameplay we've come to expect from the plumber's platform outings, but as the only entry in the *Mario* series directed by Satoru Okada, the game has some distinctive features that set it apart from other *Mario* games. Fireballs can be used to collect coins that lie out of Mario's reach, a fact taken into account by level designers, while distinctive enemies such as sphinxes and robots help the game to stick in the memory.

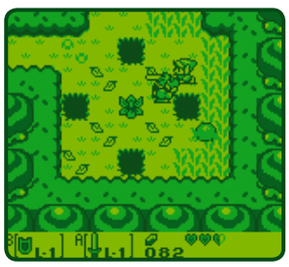
"Has there ever been a game that demonstrated so starkly that pretty graphics are always secondary to playability?"
MR PICKLE

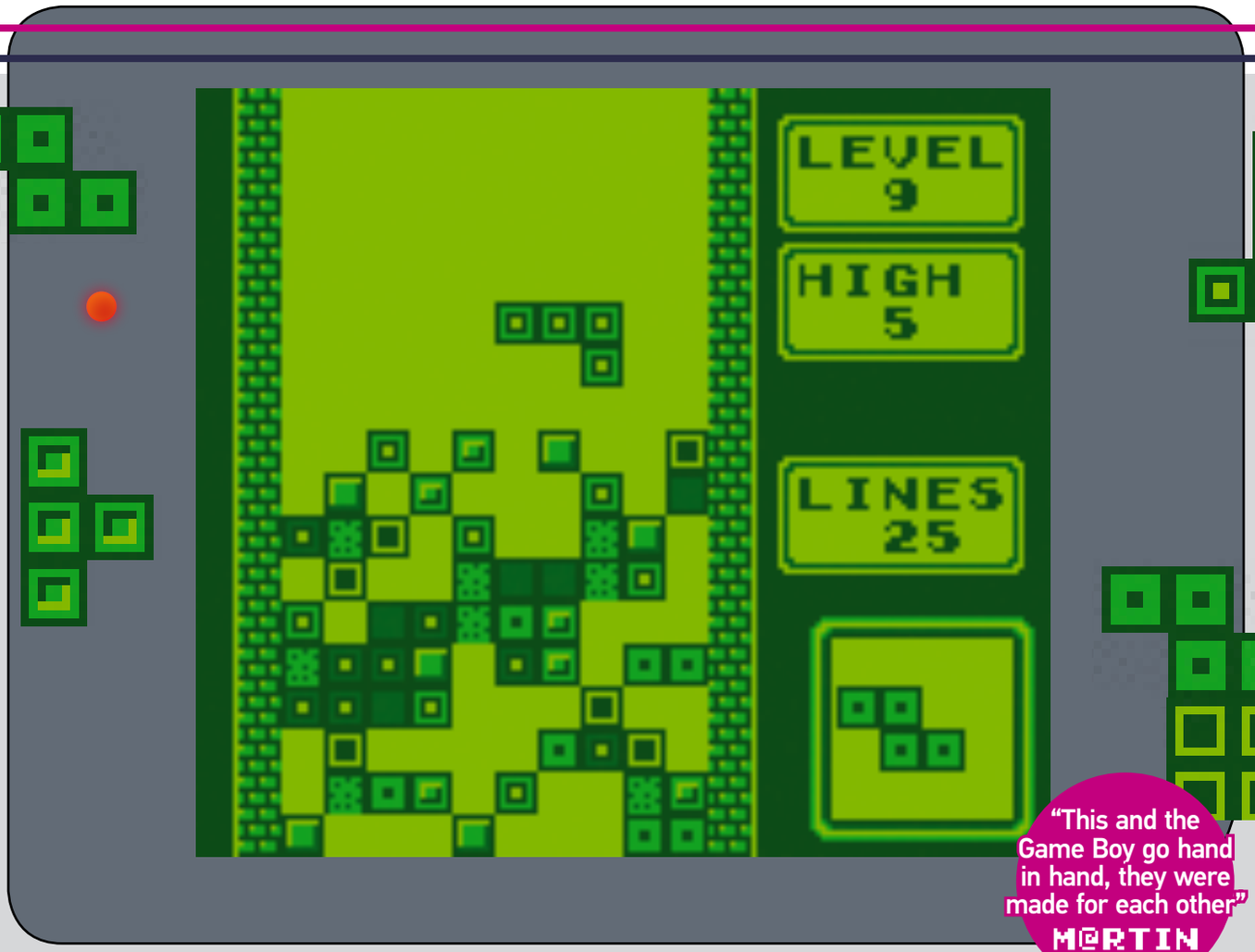
THE LEGEND OF ZELDA: LINK'S AWAKENING

■ **DEVELOPER:** NINTENDO
■ **YEAR:** 1993 ■ **GENRE:** ACTION-RPG

2 **Far ahead of** the rest of the field and running the winner close, *Link's Awakening* reaches second place. It's not hard to see why – the game is absolutely fantastic, successfully capturing the sense of adventure that we expect from the series. The large world and top-down monster slashing, the solid foundations on which 2D *Zelda* games are built, are both intact. However, it is the strength of storytelling that resonated with players, leaving a long-lasting impression.

Much like *Mystic Quest* earlier in this list, *Link's Awakening* plays around with series conventions by removing Link from his normal Hyrule surroundings. There's no Triforce and even the titular princess is missing, as this classic adventure puts the hero on Koholint Island, where he seeks to wake the Wind Fish. While the characters you'll encounter are often funny, the tale eventually ends on a memorable, bittersweet note.





"This and the Game Boy go hand in hand, they were made for each other"
MARTIN

TETRIS

■ **DEVELOPER:** BULLET-PROOF SOFTWARE ■ **YEAR:** 1989 ■ **GENRE:** PUZZLE

Come on now – did you really think it was going to be anything else? *Tetris* was an absolute phenomenon, selling over 30 million copies and single-handedly ensuring the Game Boy's success over its numerous handheld competitors. While the Game Boy version wasn't the original, the perfect combination of software and hardware ensures that it remains the most fondly remembered.

The genius of *Tetris* is its simplicity – the game can be explained to a newcomer in a matter of seconds. Bricks fall from the top of the screen, you use them to build a wall, and completed rows disappear. The more rows you clear at once, the higher you'll score. The challenge of the game lies in keeping a single session going for as long as possible, with the constantly increasing speed of the game ensuring that you can't last forever. But you always feel you could have done better, so you try again. And again. And a few more times. As "one more go" becomes the most-used phrase in your vocabulary, you realise that you've become addicted to the game. And that's before you even consider the equally addictive multiplayer mode.

Nintendo shrewdly made *Tetris* the official pack-in game for North America and Europe, with the universal appeal of the software driving sales of the hardware and making the game the best-selling Game Boy title in the process. Even the *Pokémon* craze a decade later couldn't topple the success of *Tetris*.

While *Tetris* is simple and the conversion process relatively uncomplicated, actually getting the rights was famously challenging. While the Cold War was nearing its end, the Soviet Union was still massively suspicious of outsiders – particularly Westerners – and the unannounced arrival of Henk Rogers was no small matter. Finding the right people was not only problematic, but caused major problems for those contacted as they came under suspicion of having contact from the West.

The eventual licensing negotiations were conducted with a constant KGB presence, but introduced Henk to *Tetris* designer Alexey Pajitnov, who would receive little financial benefit from the success of the Game Boy release as the copyright belonged to the state, preventing him from claiming any royalties. The two would eventually go into business together when Alexey regained the rights in 1996, forming The Tetris Company.

Tetris is great no matter what you play it on, but the Game Boy version has always felt like the perfect marriage of software and form factor. The game is suitable for quick sessions and is one you'll constantly want to return to, so a version that you are able to take anywhere is clearly going to be awesome – and that's why it's your favourite Game Boy game.

FIVE REASONS WHY IT'S GREAT

- The simple gameplay of *Tetris* gives it universal appeal, which is unmatched by any other game
- *Tetris* saves you money – by being ridiculously addictive, it reduces the amount of time you have for other games
- You can always carry a copy of *Tetris*, thanks to the Game Boy's portable nature
- The rocket launch that follows a high-scoring session is one of the greatest pats on the back in gaming
- The Game Boy's rendition of Russian folk song *Korobeiniki* leaves an indelible imprint on your brain

SUPER MARIO WORLD

LAKITU

Nintendo's magnum opus sold over 20 million copies and launched one of the greatest consoles of all time. Nick Thorpe takes a look back at Mario's very first 16-bit platform adventure for the Super Nintendo

When Nintendo finally entered the 16-bit console race in November 1990, it was in the unfamiliar position of having to stake its claim to market leadership against real competition. The company responded in typical fashion, by launching the Super Famicom with possibly the greatest one-two punch in videogame history. The turbo-charged Mode 7 racer *F-Zero* offered plenty of substance, but its appeal hinged on style and the lure of the unfamiliar. It was Nintendo's way of demonstrating technological superiority. On the other hand, *Super Mario World* definitely looked the part, but its main function was to provide substance and familiarity (in fact, the game bore the subtitle *Super Mario Bros. 4* in Japan). With it, Nintendo intended to reaffirm its position as the world's leading developer of videogames – and it succeeded.

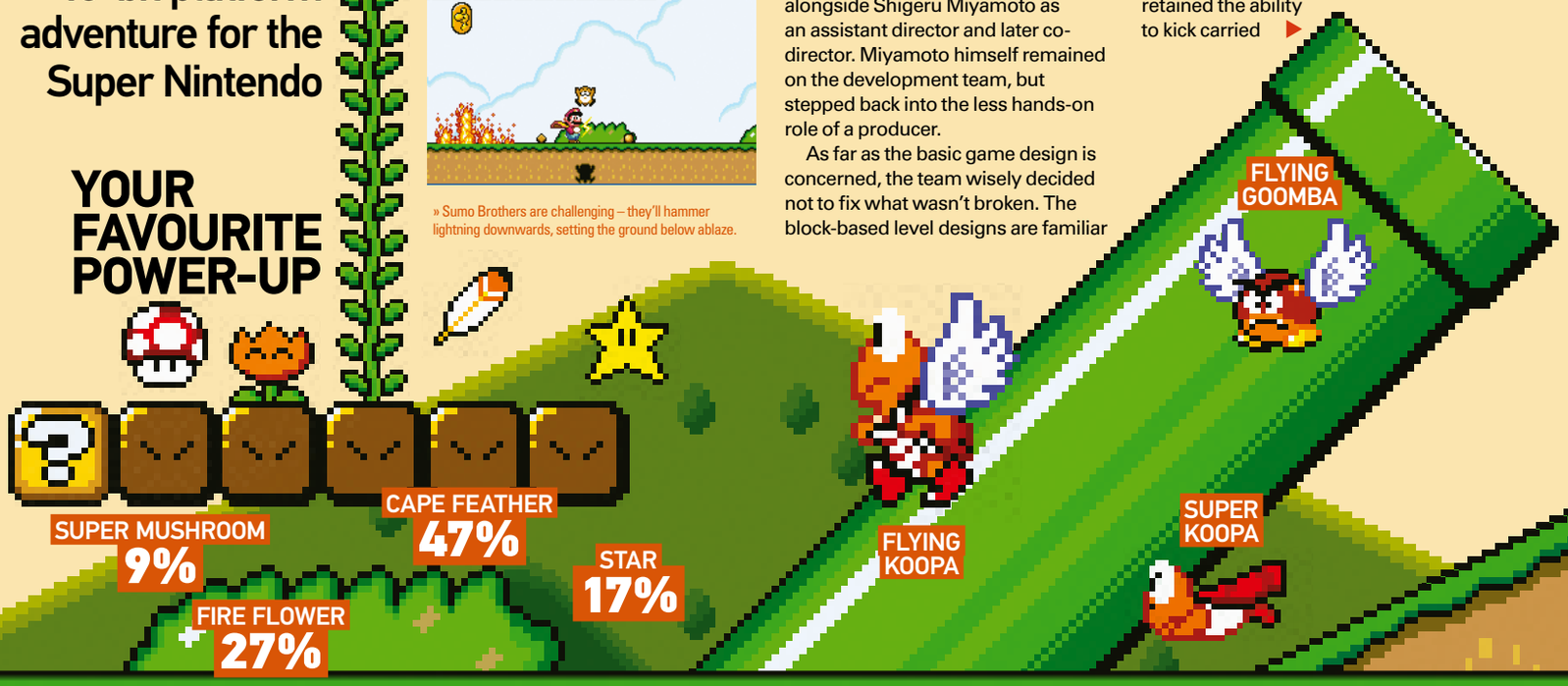
» Sumo Brothers are challenging – they'll hammer lightning downwards, setting the ground below ablaze.

To advance the game past its superb predecessors, Nintendo assigned a mixture of veteran hands and new talent to develop *Super Mario World*. Of the 15-strong team that developed the game, nine were returning from *Super Mario Bros. 3* and one had previously worked on *Super Mario Bros. 2*, while the remaining five had no prior credits and injected some fresh insight. The other major change was a new lead game director – in this case Takashi Tezuka, who had previously served alongside Shigeru Miyamoto as an assistant director and later co-director. Miyamoto himself remained on the development team, but stepped back into the less hands-on role of a producer.

As far as the basic game design is concerned, the team wisely decided not to fix what wasn't broken. The block-based level designs are familiar to anyone that has played a *Mario* game, and Mario's skills and abilities are largely drawn from *Super Mario Bros. 3*, albeit with a few tweaks. The variety of special forms was scaled back to Fire Mario and Caped Mario (a new form, but one functionally similar to Raccoon Mario), and Mario retained the ability to kick carried

» This swarm of Bullet Bills is testament to the fact that there's a real challenge present.

YOUR FAVOURITE POWER-UP



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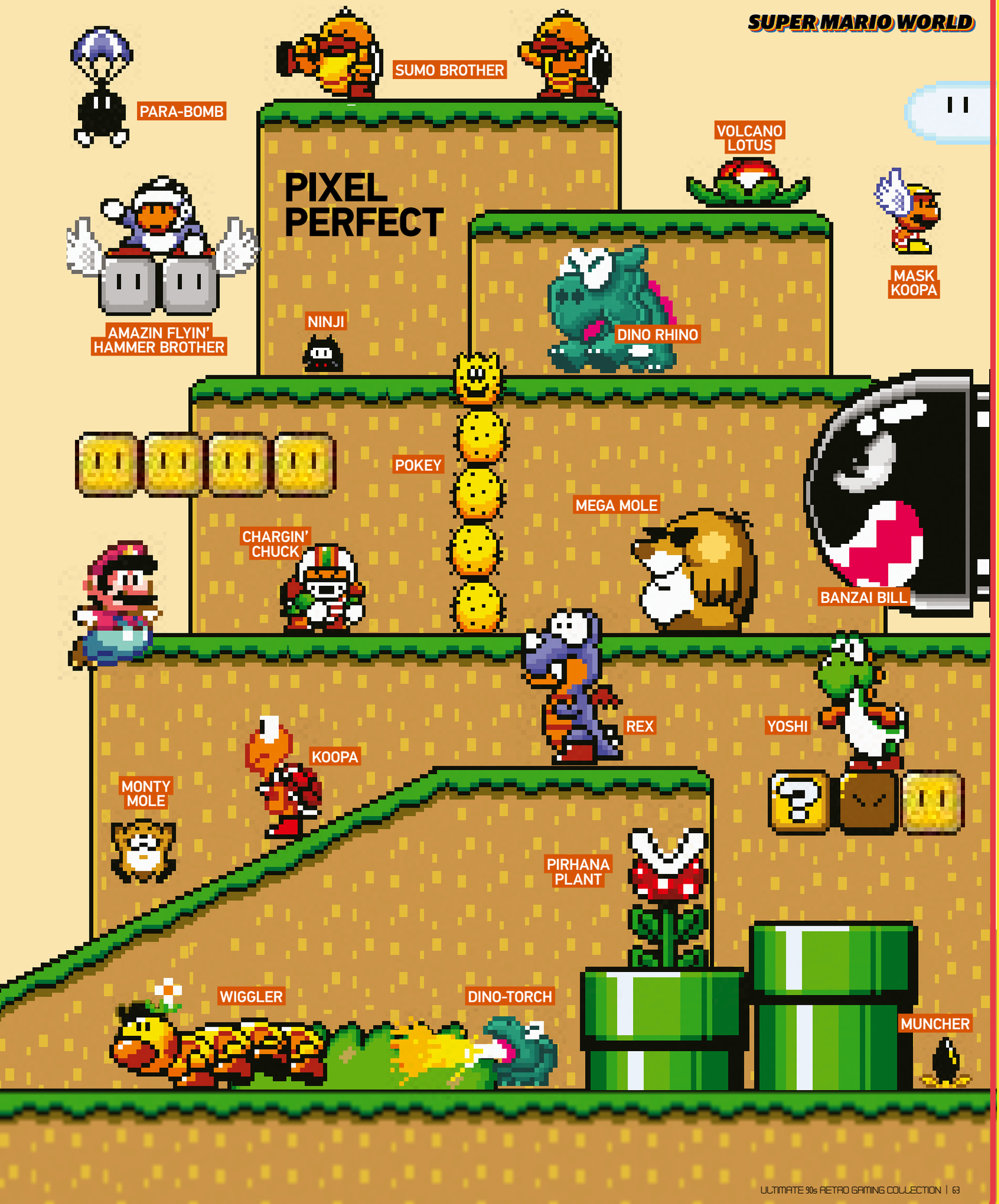


GAME BOY ADVANTAGE

Super Mario World only has one non-emulated conversion and Super Mario Advance 2: Super Mario World is certainly interesting…

When Nintendo chose to bring *Super Mario World* to the Game Boy Advance back in 2001, it came across with a variety of changes. The most notable of these is related to Luigi. As well as using his revised sprites from the *Super Mario All-Stars* edition of *Super Mario World*, he's got his high jump and slippery run back from previous games. Other characters have also had a graphical touch-up, and the visuals have been brightened all-round due to the lack of a backlight in the original Game Boy Advance model. While the music has all been retained, there are definite differences in sound due to the differences in sound hardware between the SNES and Game Boy Advance. However, Mario, Luigi, the Koopalings and the Boos have all gained voices. There's also a brand new intro sequence featuring Mario, Luigi and Peach.

In terms of game design, a few changes have been made – Dragon Coins have been added to stages that didn't previously feature them, and your spin jump protects you from more enemies than in the original. Once you've encountered a coloured Yoshi, you can find them in regular stages by finding an egg with certain power-ups. Additionally, if you've got the cape or fire powers, taking a hit won't send you straight back to your small form. The game can also be saved at any time. No matter which version you play, *Super Mario World* is an amazing game, but the changes may cause purists to stick to the original SNES version.

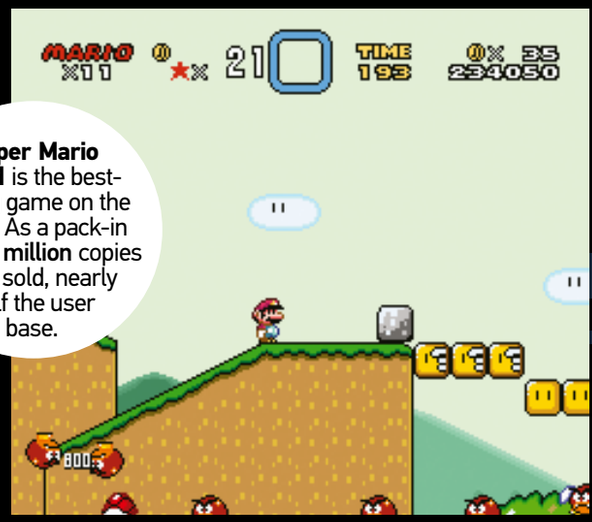
ems but could not boot them skyward. Other than that, the portly plumber gained a new companion in the form of Yoshi, a dinosaur that will grant him a ride and eat quite a few of the enemies that stand in his way.

Super Mario World is the best-selling game on the SNES. As a pack-in over **20 million** copies were sold, nearly half the user base.

The major innovation of *Super Mario World* was its structure. *Super Mario Bros.* had introduced the concept of multiple stage exits with its Warp Zones, and *Super Mario Bros. 3* had introduced a world map to the series. What *Super Mario World* did was to combine the two concepts into a non-linear experience. Whenever a stage had more than one exit, there was usually a good reason to seek that extra exit – at the very minimum it could lead to a secret stage, but it might also lead to a warp or even one of the game's Switch Palace stages. When completed, each of the four Switch Palaces activated appropriately coloured blocks throughout the game – you could tell where they were meant to be thanks to the appearance of their coloured outlines. Often they just made things a little easier by blocking off pits or providing extra platforms, but occasionally they would be crucial to making progress.

In retrospect, *Super Mario World* is surprisingly economical with its resources, given its status as a showcase game for a new console. Take the game's music as an example – Koji Kondo's soundtrack makes excellent use of theme and variation. When you first hear the overworld music, you get your first experience of a melody that persists throughout the game, forming the basis for almost every piece of action music from the underground and underwater stages to the castles and ghost houses. Likewise, while it's always visually enticing, *Super Mario World*'s wealth of levels means that it inevitably reuses backgrounds and objects frequently. What's more, the game makes sparse use of the console's advanced graphical features – where other designers might be tempted to design in such a way that highlights them, transparency and Mode 7 scaling and rotation are only deployed where they make sense in the context of the game design.

That's the real genius of *Super Mario World*, though – it is a textbook example of a design team managing to make a lot from a little, because fresh ideas are never in short supply. You can take the scenic route through the game, taking in as many stages as possible on the way to the climactic fight with Bowser, and never encounter the contempt that repetition breeds. When you encounter a tense section in which you hop between moving platforms



» *Super Mario World* offers visual cues – these slopes make the solution to this line of enemies obvious.

THWOMP

» Blargg is a sneaky foe, checking that you're approaching before it emerges from the lava.

» Secret exits are the key to *Super Mario World*'s long-term appeal (pun definitely intended).

» Mario's new dinosaur pal stomps enemies efficiently, but gains far more from eating them.

BUZZY BEETLE

WIZARD

PORCU-PUFFER

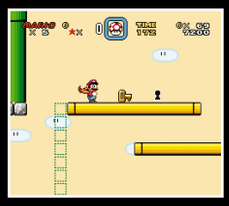
BLURPS

RIP VAN FISH

LIL SPARKY

THE SHORTEST ROAD

Do you want beat this classic, but are pressed for time? Worry not – with this guide, you'll have the game finished quick



1 Start with Yoshi's Island 2 and play normally until you reach Donut Plains 1. Once you get there, grab a cape from a Super Koopa. Use it to fly to the key near the end of the stage for a secret exit.

2 In Donut Secret 1, you'll need to find another secret exit – you can do this by finding a P Switch, then using it to turn these blocks into coins so you can retrieve the key from the Question Block.

3 Donut Secret House has a hidden boss fight – you'll need to trigger this vine, pictured above, then use a P Switch to reveal a door at the top. Beat the Big Boo and you'll gain access to Star Road.

4 Beat each Star World stage by finding its secret exit. In Star World 2, you can acquire a blue Yoshi which gains the ability to fly when its mouth is full – make sure you leave the stage with it.

5 In Star World 4, use your Yoshi to fly beneath a section of blocks to reach the exit. You can now access Bowser's Castle and beat the game, having seen just 12 of the game's 72 stages.

SWOOPERS

HOT HEAD

"Super Mario World is surprisingly economical with its resources"

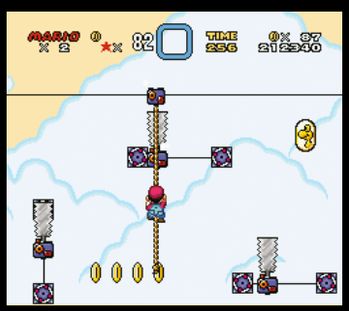
as buzzsaws hurtle towards you, that's the only time it'll happen. Even late in the game, you'll find new ideas, like a maze built from overlapping layers of moving rock. Those ideas which are re-used, such as the new puzzle-centric Ghost House stages, are presented in ways which leave each encounter feeling distinct.

What's all the more surprising is that this level of creativity is found in the series' fourth game. Some of it can be attributed to the power of the SNES allowing the designers to do things that had previously proven impossible, and the addition of a save battery certainly enabled the enormous game world to be realised. However, credit must also go to the development team for breaking new ground when it would have been easy to just provide a slightly prettier version of what had gone before.

But *Super Mario World* was all the more special because it represented the end of an era, as the last traditional 2D *Mario* platformer to hit a home console for many a year. *Yoshi's Island* was a marked departure from the traditional Mario style, and Nintendo took its mascot into the world of 3D for his next major console game. By the time Mario's side-scrolling adventures returned in the *New Super Mario Bros.* series, traditional pixel art and chiptunes had been left behind and things never quite felt the same.

According to your votes, *Super Mario World* is the greatest game of all time. It's not hard to see why. It looks nice, sounds wonderful and is masterfully designed. If you want depth and discovery, *Super Mario World* can give you that. If you want to make your way to the end as quickly as possible through brute force, that's allowed too. However, as a launch game, it also represents the thrill of new things – that unforgettable rush of excitement you experienced when you saw hardware doing things you'd never thought possible, which greatly excites us. It's a game that can be – and has been – enjoyed by players of all ages, from all over the world.

Shared nostalgia is what brings us together as retro gamers, and according to you lot, no other game appeals quite so broadly as *Super Mario World*. All hail Mario – the King Of Games. ★



» Hanging off a dangling rope while avoiding buzzsaws is a unique thrill – it only comes up once.

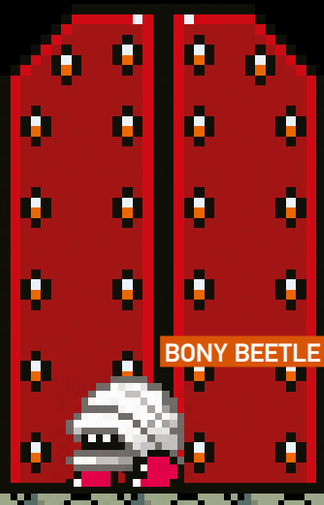
» The boss themes use the same melody as the action stages, but they feel completely different.

THWIMP

BOO BUDDIES

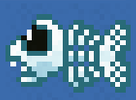
» Ghost Houses typically offer simple obstacles but tricky navigation, requiring brainpower over quick reflexes.

DRY BONES



BONY BEETLE

URCHIN



FISHBONES

TORPEDO TED

Q&A: ROBERT FENNELL

Known online as GreenDeathFlavor, this speedrunner shares his insight on demolishing Mario's finest game

When did you first encounter *Super Mario World*, and what did you make of it?

My first encounter with *Super Mario World* happened in 1992, when we got a Super Nintendo and my siblings and I were playing in the living room. I was a Mario kid – we had all of the *Mario* games. My best *Mario* memory is when I was first in our house to beat *Super Mario Bros.*.

What's your fastest completion time for *Super Mario World*, and how did you achieve it?

My fastest completion is in 9 minutes 47 seconds (9:47.58). I acheived that in January 2015, breaking a tie between myself and dram55 when we both had a personal best of exactly 9:48.98.

The run was done using a glitch in the game known as the 'cloud glitch'. When Mario collects a coin that Yoshi is about to eat, it gets replaced by the next available sprite, in this case, the Chargin' Chuck. Chargin' Chucks have the ability to give power-ups when eaten. In 2014, it was discovered that you can eat a Chargin' Chuck as small Mario and the game will give you a Lakitu cloud. The Lakitu cloud is useful because it can manipulate Bowser in the Bowser fight, making him stop instantly when it's moving off-screen to the left. This means you can complete the final battle up to a minute faster.

In January I finally got a solid run with a good Bowser battle which resulted in a new record which has stood for ten months now, but is beatable. The record could very well come down a full second or more with a perfect run.

Why is *Super Mario World* such a good game to speedrun?

I believe it's a good game to speedrun because it's a relatively easy game to learn. A lot of levels are beatable by just flying over them. There's also a lot of variety with this game. If you're looking for a fast easy run you can do any level. If you're looking for something a bit longer you can do no Star World. Of course, there's 96-Exit where you beat every level in the game. You could even challenge yourself with the no cape category.

What techniques are essential for any *Super Mario World* speedrunner to succeed?

You should play through the game a bit to get used to the game and its physics. Then practice every level and watch videos to learn new strategies. New runners can find videos for every level on smwwiki.com. I like to use a lot of visual and sound cues. I think it's important to find these cues for executing moves with tight input windows. When you have all the basics down you can begin to study and learn glitches if your goal is to get a fast time.

If you really get into *SMW* speedrunning and learn everything then it's all about the grind. You can't get record overnight, you need to put in a lot of attempts. When I first started I had times of over eleven minutes. It took me about a year and a half before I got world record in my category, so patience is definitely required.

BOSS RUSH

What kind of hero would Mario be if he didn't bring down a few behemoths on his travels? Here's a rogue's gallery of the miscreants he comes up against in Super Mario World

REZNOR

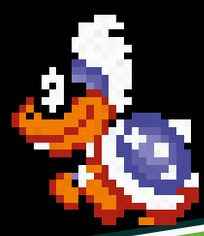
1 This quartet of fire-breathing triceratops stands atop a set of rotating platforms. You'll need to bump them from underneath, but watch out! Once you've knocked a couple of them from their platforms, the ground beneath you will start to give way. If you can't take out the remaining beasts, you'll need to hitch a ride on their carousel in order to finish them off. Oh, and if you were wondering, Reznor *is* named after the Nine Inch Nails frontman, Trent Reznor.

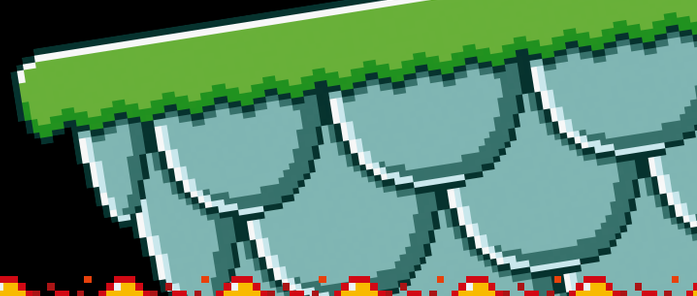
BIG BOO

2 Mario spends most of his time running away from these ghostly baddies, but the Big Boo resident in Donut Secret House is an aggressive sort. Unlike his compatriots elsewhere, he's capable of disappearing at will and is accompanied by a couple of regular Boos. You'll need to pick up Grab Blocks from below and throw them upwards at Big Boo, but they'll only hit when he turns visible. Three hits should be enough to see him off for good.

IGGY KOOPA

3 After battling your way through Iggy's castle, you'll encounter him atop a tilting platform, floating in a sea of lava. What follows is a deadly sumo contest, as you try to push him into the molten rock while he tries to toast you with fireballs. When you jump on him, he'll always slide downwards – so ideally, you want to time your hits for when he's close to the edge and it's tilting down. Fire Mario makes this fight a walkover, incidentally.





MORTON KOOPA

4 Your mere presence is enough to drive Morton up the wall – literally, as he runs towards the wall and then runs straight up it and onto the ceiling. Once he's up there, you'd better keep moving as he's going to try to jump down onto you. When he lands, turn the tables on him and jump on his head. He's the game's easiest boss, and a few hits will see this him off without much of a fuss.

LUDWIG VON KOOPA

6 Hey look, it's a throwback to the original *Super Mario Bros.*! Ludwig is much like the Bowser of old, standing on the right of the screen and breathing fire at you, but now he's got a twist – a spinning backflip which makes getting behind him less of a brilliant plan than it might seem. Jump on his head a few times and you'll see him off. Incidentally, Ludwig Von Koopa boasts one of the game's few non-repeated boss templates.

ROY KOOPA

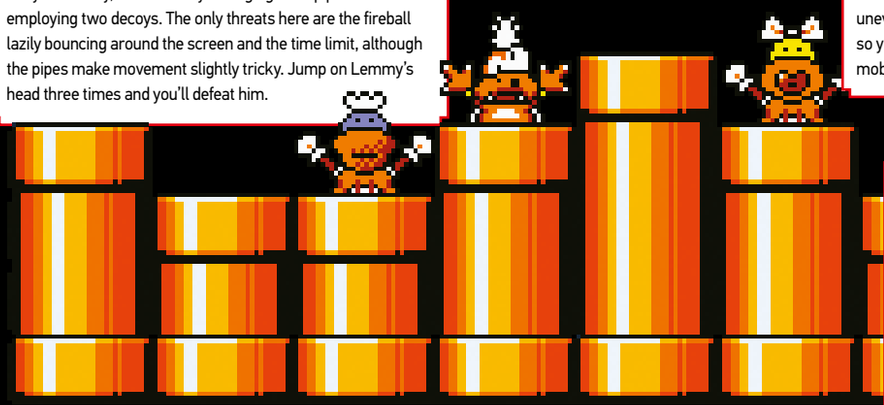
7 Roy's fight is much like the battle against Morton, but harder – the walls are closing in, making for a claustrophobic work environment. He is defeated in exactly the same way.

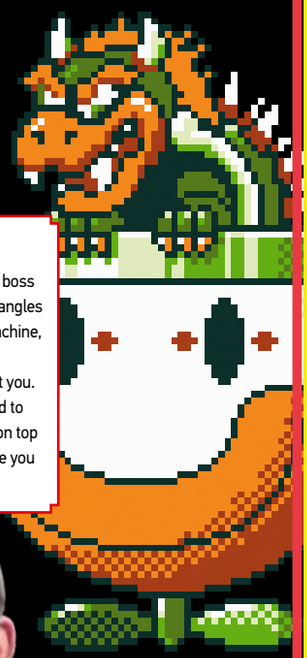
LEMMY KOOPA

5 Lemmy is quite happy to try to trick you rather than attack you directly, momentarily emerging from pipes while employing two decoys. The only threats here are the fireball lazily bouncing around the screen and the time limit, although the pipes make movement slightly tricky. Jump on Lemmy's head three times and you'll defeat him.

WENDY O. KOOPA

8 Wendy shares her brilliant plan with the hare-brained Lemmy, substituting the uneven pipes for a second bouncing fireball – so you face a greater threat, but with greater mobility. Jump on her head.





BOWSER

10 One of only two completely unavoidable boss fights in the game, Bowser has various angles of attack. He'll try to ram you with his flying machine, he'll drop fire on you from above, he'll roll giant metal balls at you and he'll lob Mechakoopas at you. The latter are important – to beat him, you need to immobilise them, then lob them upwards and on top of Bowser. After a couple of hits, Peach will give you a mushroom. Then rinse and repeat!

LARRY KOOPA

9 Larry has borrowed that fancy tilting platform from Iggy, and he's hooked up the lava fountain to spit up some nice deadly fireballs too. Give him a nice hot bath.

TOMB RAIDER 101

■ The concept behind the original *Tomb Raider* was simple – a game of exploration, puzzle-solving and combat which starred a female version of Indiana Jones. One of the first major 3D action-adventure games, it set the template for the genre. The *Tomb Raider* game series has been rebooted twice and it now under the custodianship of Crystal Dynamics.

TOMB RAIDER

25 YEARS INTO HER CAREER, LARA CROFT SHOWS NO SIGNS OF SLOWING DOWN. IAN DRANSFIELD LOOKS BACK AT THE GAME THAT STARTED IT ALL – THE ORIGINAL, NON-REBOOTED, NOT STARRING ANGELINA JOLIE VERSION

It's hard to imagine it but *Tomb Raider* wasn't always a phenomenon. When it released in October of 1996, landing first on the Sega Saturn (and not to hit its spiritual home of the PlayStation until the following month), it was well-received… and that's about it. Fast-forward 19 years and here we are in a world where everybody knows the name Lara Croft, where gamers and non-gamers alike have played at least one *Tomb Raider* game, or have at least seen one of the movies.

So how do you go about manufacturing an icon? According to Adrian Smith, former operations and development director at Core Design, you don't. You just cobble together a few ideas. "Interestingly enough the original idea came from a couple of sketches that Toby [Gard] had and a couple of conversations we had," he explains.

"I can't remember the exact time, but my brother [Jeremy Heath-Smith, Core co-founder] and I had just come back from the Tokyo Game Show where we'd seen all the wonderful new titles about to be released, and it was very much a change in focus with a lot more 3D-style games because of the new hardware launching… the original idea for *Tomb Raider* came from there."

All the Indiana Joneses, adventuring explorers like Tintin, and contemporary archaeological legends definitely contributed to the final product, but the original spark of inspiration for *Tomb Raider* was a straightforward one. "It was as simple as saying, 'Wouldn't it be great to do something shrouded in mystery, Egypt and the temples, tombs…' That's how it started," Adrian recalls.

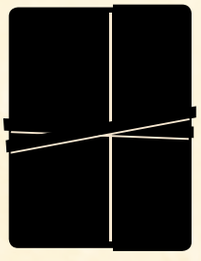
From the ideas jotted down and discussed came a concrete plan for a game – a plan that didn't waver much from day one to completion, as Adrian tells us. "The key bits of the game actually fell into place very quickly – the design which Toby wrote initially was a 12-page document." One key element of this document, of course, being the protagonist. "We knew this was not a character that needed to be a muscle-bound, gun-toting superhero," he explains. "We really didn't want that character, it came very easily to us to recognise that this character would be somebody we wanted the player to associate with and we saw that though all its iterations."

In fact, the character who became Lara Croft didn't actually have guns until about halfway through development of *Tomb Raider* – the team was that adamant it needed to get the exploration and puzzle-solving right first. "It really changed the focus," Adrian remembers. "As soon as you give someone guns they ▶

» Puzzles were taxing, but only as they required you to search every nook and cranny – usually for three MacGuffins.

» While quaint by modern standards, *Tomb Raider*'s distinctive style does still stand out.

» It was never cutscene heavy, but *Tomb Raider* did every now and then veer into expository storytelling.



IN THE KNOW

» **PUBLISHER:** Eidos Interactive

» **DEVELOPER:** Core Design

» **RELEASED:** 1996

» **PLATFORM:** Saturn, PlayStation, PC

» Few others in the history of gaming ever managed to create a sheer sense of vertigo like *Tomb Raider*.

» Your main antagonist here, after she's turned into a winged mutant beast.

» At one point, *Tomb Raider* had no sloping surfaces. The diagonal degree was added in.

▶ turn into this Arnold Schwarzenegger-style character, and that wasn't what we wanted, we knew that very early on."

But eventually the plan changed; with the groundwork laid as a non-Arnie simulator, gunplay in *Tomb Raider* was presented as an additional mechanic, rather than the focus. "We decided we needed to add another element," Adrian says. "So bats and wolves came along – but then we had to figure out what Lara would do about them. Hence, we gave her guns. I think it enhanced the game, it added a level to Lara that allowed us to be more acrobatic. That spawned the running and gunning at the same time, then the twisting in the air, and from that the swallow dive came."

» Although it launched on Sega's Saturn, *Tomb Raider*'s success was on PlayStation.

This ability to be so nimble and change focus and ideas so quickly and efficiently wasn't by accident – Core's team was a small one, and its use of (at the time) non-standard building tools made the process of revisions faster and easier than it had been previously. Nathan McCree worked as composer on the original game, with some responsibility for producing the FMV and cutscene scripts. He explains how the team size at Core affected development: "There was a group of about six to eight people, expanding to about 12 to 15 with people who were brought in at various stages throughout the production. We all worked close to each other so people didn't really email each other, they just talked. It was a real melting pot of ideas."

This close proximity enabled an organic expansion to *Tomb Raider*, Nathan says, with ideas openly floated and discussed between junior and senior members of the team alike. "We were almost like a family, often going out together and partying. Many of us are still in contact and we get together when we can."

Nathan admits that it wasn't perfect working on a smaller production, as *Tomb Raider* was back then, with the smaller scale introducing its own problems. One of them being as simple as not having the time to get back down to London: "I remember we went over to London to record the voice artists in some sound studio," Nathan says. "Some days later back in Derby when I was editing all the audio, I discovered we had forgotten to record one of the characters in the script, and with only days to go before our final submission to the publisher there wasn't enough time to book another recording session. It became clear that I would have to do it myself. So I ended up playing the part of the Medieval Monk in the Lift FMV sequence which precedes the level St Francis' Folly."

But generally speaking the atmosphere within and size of *Tomb Raider*'s development team was a huge boon to the production. "I think levels of creativity are hard to maintain in a large team," Adrian explains. "It's an obvious thing to say, but when you're a small team and everyone is living and breathing [the game], then it does keep focus and motivation up. I'd say everyone in the team was a key stakeholder into the direction that the game took."

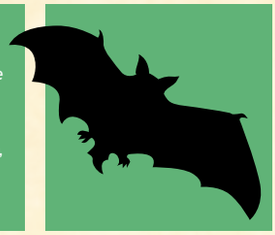
Of course, working so closely – literally and figuratively – with others ▶

ENDANGERED SPECIES

Mythical or real – Lara will kill it

BATS

■ Squeaking, irritating little buggers bats might be, but don't underestimate their ability to put you off a jump, causing you to plummet to your death.



BEARS

■ Moving silently, bears pack a hell of a punch when they get in close. Lara's agility is her best bet here – that or just hiding in pools until the bear gets bored...

LIONS

■ Another beastie that can do a lot of damage if it gets in close, the best thing to do is flip around like a madwoman in order to confuse and frighten the king of the jungle. Then shoot it.

CENTAURS

■ Obviously there are centaurs. Sigh. These mythical gits lob painful exploding fireballs at Lara, meaning they should be avoided at all costs. Just run away, if you can.

CLONE

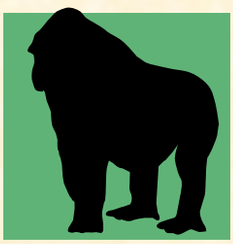
■ A skinless clone of Lara that mimics your every move – oh, and any damage you inflict on it is inflicted back on you. Hmm, if only there were some handy trapdoor into a lava pit nearby...

MUTANT (GIANT, NO LEGS)

■ This...thing might not have legs, but it more than makes up for it by looking terrifying and being able to kill you quickly.

GORILLAS

■ We know them to be close relatives of ours, and intelligent, but it seems Lara doesn't care and wishes nothing but death on our cousins. Hmm.



MUMMIFIED MUTANTS

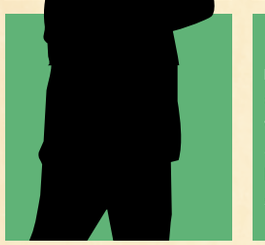
■ Why the Egyptians would be mummifying these monstrosities we do not know. They explode, because why not?

MUTANTS (ALL FOURS)

■ Some mutants never developed the ability to walk upright, instead sticking to all fours and they're generally irritating.

RATS

■ What game would be complete without a smattering of vermin. *Tomb Raider*'s rats are an irritation, nothing more. Like bats, but with less flying.



PEOPLE

■ Of course, the most dangerous animal in Lara's way is other people. These antagonists are dangerous because they can actually shoot back at Lara.

FLYING MUTANTS

■ What's worse than a mutant? A flying mutant. These monsters aren't too difficult to deal with, but if you're not paying attention they can cause some pain.

RAPTORS

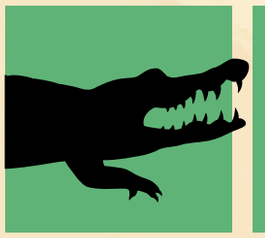
■ On a scale of 'one' to 'unexpected', Velociraptors turning up quite early on in *Tomb Raider* ranks as 'unexpected'. Then its larger cousin appears soon after...

MUTANTS (BIPEDAL)

■ Some skinless mutants *did* figure out how to walk upright, but instead of being happy about it we are just unnerved.

WOLVES

■ A wolf is little problem for Lara. Unfortunately, wolves operate in packs, and six-on-one is the kind of odds that causes Ms Croft problems. Dodge, roll and dive a lot.



CROCODILES

■ These green berks aren't difficult to deal with on land, but the problem is you often encounter them while going for a dip. Get out, dry off, make some new luggage.

TYRANNOSAURUS REX

■ *Tomb Raider*'s most famous enemy comes early on in the game and is easy to defeat. If you hide in the crevice, it can't get to you. No wonder its extinct.

DEADLY CREATURES

» The symbol on health packs was asked to be removed by a 'certain organisation sporting the same logo'.

» The tradition of violent ends to Lara's quest continues to this day, but little is more horrifying than swan diving onto the ground.

» Lara's home wasn't just a nice touch – it was a tutorial. You could even lock the butler in her pantry in the second game.

DEVELOPER HIGHLIGHTS

CHUCK ROCK
SYSTEM: ATARI ST, AMIGA
YEAR: 1991

FIRESTORM: THUNDERHAWK 2
(PICTURED)
SYSTEM: PC, PLAYSTATION
YEAR: 1995

PROJECT EDEN
SYSTEM: PC, PS2
YEAR:2001

▶ brought its own set of problems, and both Adrian and Nathan highlight the sometimes 'heated' discussions that would be had over the smallest of points – like how the camera would operate on Lara entering a room, or the fact the game originally had no slopes in it whatsoever. But both maintained that this open, frank and agile form of development was one of *Tomb Raider*'s biggest boons.

Said agility came from a toolbox the team created internally to help speed up production of new levels and in-game mechanics – something that could be modified quickly and tested or reviewed almost as soon as it was implemented. "I think that was one of the key elements of its success," Adrian explains. "The ability to, across the team, be able to play it, review it and change it very easily."

While discussions raised the temperature in the small Derby office, there wasn't much in the way of disagreement internally. In fact, the only major point of contention was one raised by the publisher, Eidos, which tried to convince the team at Core to steer things away from a female protagonist.

"It said things like 'Don't do a game with a female character – at least have a male character in there so the player has a choice,'" Adrian says. "Many of those decisions were openly discussed and the team stood fast on them, and it was quite right to do so. *Tomb Raider* would have been quite a different game if the player had a choice between a man or woman character. It was asked for, and we said, 'No, it's the core of what this game is about – it's about this character.'"

That character, Lara Croft, became an icon – featuring on the front cover of magazines, going on tour with U2, having a couple of films made of her adventures, you know how it panned out. But initially she was focused on by an immature gaming press and fan base devoted to the size of her breasts.

Those polygonal things jutting out of her chest were the focus of way too much attention back in the mid-Nineties, and it's something Adrian tells us he found amusing. "She was a cartoon character to us," he laughs. "It's no more than like on *Tom & Jerry* when Tom gets his foot hit by a hammer and it swells to ten times the size. The technology didn't allow us to make her visually as we wanted, so it was more of a way of hiking certain things so it would give her some shape – it was that simple."

» *Tomb Raider* brought in many influences from various mythologies – like Thor's hammer, seen here.

» Retrieving cogs was a typical example of the puzzles found in *Tomb Raider*.

As the attention on Lara grew, more people were drawn to actually play *Tomb Raider*. In it they were welcomed by a unique proposition; a game that didn't offer much sympathy, and one that would just as often reward random exploration as it would punish it. One minute you were discovering a hidden ammo pouch and health pack behind an ancient statue of a cat, the next you were being chased by a bunch of Velociraptors into the path of a Tyrannosaurus Rex.

Everyone remembers the first time they found the giant hand in Palace Midas – the temptation to climb on it being too great, only to be instantly met by Lara's death as she turned to gold. Speaking of death, this was another key element to the game – something that punished the player but offered some level of gratification as your on-screen avatar burned, suffocated or plummeted to her demise. It sounds wrong, but if you find someone who played *Tomb Raider* and *didn't* dive off a cliff onto solid ground, you've found a liar.

Adrian's favourite moments of *Tomb Raider*, though, come in a different form – those of a man on the other side of the fence. "It got updated, but originally there were three secrets on each level with a total of 100 in the game," he explains, "We started to get phone calls from people while we were working on the second game, four in the morning in tears, saying 'I'm playing the game, I've got 99 secrets, please tell me where the last one is, I can't get 100!'

"We discovered – and we did chuckle – the programmers had done the counter for the secrets, but it was never made to cater for three digits, so even

"GAME OVER MAN" The unfortunate misadventures of Lara Croft

THE SWORD OF DAMOCLES

■ What's that shadow on the floor for? Oh, it's just a gargantuan sword hanging above you, ready to plummet down on your head. And remember: in the Greek tale it was just the one sword. In *Tomb Raider*, it's about a dozen.

DROWNING

■ Most of the time you're panicking as you try desperately to get Lara up and out of the water, back into the welcoming lung-filling embrace of breathable air. If you don't make it, you feel truly awful – even 20 years later, it's still a seriously uncomfortable sight to behold.

IMPALEMENT

■ It's one thing to fall way too far and snap poor Lara's neck, as we all did a million times in *Tomb Raider*, but there's something that much more shocking about her short, ever more violent plummets onto the beds of spikes left around by dozens of mad ancient bastards.

LAVA

■ Why is that bit of floor red? Oh right because it's intensely hot molten rock and now Lara's on fire. And dead. Just when you think the falls and spikes and animals are as bad as it can get, half of the floors you encounter in the latter parts of *Tomb Raider* become deadly.

THE MIDAS TOUCH

■ One of the greatest – and cruellest – surprises in any game, Core introduced the hand of Midas to tempt players to climb on it. What happened when you, inevitably, did? Why, the king's touch did what it did best: turned you to gold. Cold, hard, *dead* gold.

though people were finding all hundred secrets, the counter only went to 99. These poor people… we told them, 'Just keep playing, you'll find it…' So it was a change that we had to make quickly, but I do remember we all [laughed], it was something we all missed."

While light relief was had by the team, there were things about the experience working on *Tomb Raider* that Adrian wasn't so enamoured with. "All the nights we burned on it. It was hard work," he laments. But at the same time, Adrian acknowledges this hard work was rewarding and paid off. "It was a labour of love," he says. "People got protective and passionate about it, and that brings quite a few arguments and raised voices. But overall finishing it was fantastic."

It wasn't long after completing development and releasing *Tomb Raider* that the phenomenon began to take off. It's easy to forget that in 1996 this was a new type of game – and nothing before had starred such a unique lead character. The hype train got up to full speed and the legend of Lara and her tomb raiding adventures was underway.

Nathan explains how the team was taken somewhat by surprise when *Tomb Raider* – and Lara's star began to shine so brightly. "I don't think any of us really knew how famous it would become. It's not something that any of the team really thought about I don't think… *Tomb Raider* for me was just another game in a long list of games that I worked on. It wasn't until it hit the charts and we saw the reviews that we knew we had something special."

Adrian echoes this surprise, though his experience of realising *Tomb Raider* might become a monster came from marketing meetings with publishers. "I remember sitting in a room with all the sales and distribution teams and they were banding these figures around and we'd never predicted this game would do millions. That's when the fear really hit! I thought 'Christ, we'll probably have to finish this now…'"

» Later on in the game, things get… well, a bit weird. Apparently the Great Pyramid is alive inside?

> "IT WASN'T UNTIL [TOMB RAIDER] HIT THE CHARTS AND WE SAW THE REVIEWS THAT WE KNEW WE HAD SOMETHING SPECIAL" Nathan McCree

As her star grew, Lara became more of the focus, overshadowing the *Tomb Raider* game that was meant to be what we were all talking about. It didn't bother the team at Core, however, and in fact the studio started to have a bit of fun with the increased attention their creation was getting. "Tongue in cheek we did many things," Adrian laughs, "I remember as the level of interest began to rise we had questions like, 'When's her birthday?' We just flippantly said, 'Well, it's February 14' –things that sprang to mind. These things stuck and got woven into Lara's fabric and really became part of her. 'Where did she go to school?' Well we sent her to an all boys school – shows what we knew."

Sequels inevitably followed, even though the original plan was for one game and no more. Teams changed and were moved to try and keep creativity flowing, but ultimately the spark dimmed. Lara's appeal began to fade. After a disastrous release of *Tomb Raider: Angel of Darkness*, Core Design was stripped of its own creation, with Lara and her adventures passed on to the US-based Crystal Dynamics for its 2006 release of *Tomb Raider: Legend*. The title was apt, and the rebirth of a true gaming superstar began in earnest – but the writing was on the wall for Core.

It was a sad end from such a bright beginning, but one neither Adrian nor Nathan has hard feelings about: "I really enjoyed it," Nathan smiles. "Of course I loved writing the music but also working with the script writer and voice artists and producing the video sequences. I can't think of a better job to do."

Adrian's pride is also palpable – this was something that became huge, from a small British team, crafted from an original idea. "I'm hugely proud of it," he said, "I'm sure all the team that worked on it is proud, and they should be as well.

"We created something that has stood the test of time – I don't think we should underestimate that, and I don't think you can be anything else other than proud. You can only look back on it – even though it was sad at the end – very positively. It was a hell of an experience one that I'm pleased I was part of."

» It is blocky, textures are low quality, the draw distance is poor… but *Tomb Raider* still has an incredible feel to it.

THE DYNAMIC EFFECT

Once Lara was ripped from the grasp of her creators, she went to live at US-based Crystal Dynamics. While many worried about this fearing the worst for a British heroine, history has shown her now decade-long custodians know how to make a great Tomb Raider game

TOMB RAIDER: LEGEND 2006

■ Crystal Dynamics surprised a lot of people with its first take on *Tomb Raider*, mainly because it was good. Like, good to the point that a lot of people immediately forgot about Core Design. *Legend* was a bold opening statement that paid off.

TOMB RAIDER: ANNIVERSARY 2007

■ A remake of the 1996 original, *Anniversary* was both a tenth birthday present for *Tomb Raider* and a rather bloody good game in its own right. Not a re-skin but a full rebirth, this was a fine game to complement the original, sitting proudly alongside it.

TOMB RAIDER: UNDERWORLD 2008

■ Probably the least memorable of Crystal Dynamics' *Tomb Raider* output, *Underworld* wasn't bad in the slightest – it was just a bit dull. It showed that CD's refined formula, its take on the original *Tomb Raider*, needed freshening up in some way.

TOMB RAIDER 2013

■ And so Crystal Dynamics did indeed reboot Lara's adventures, giving us an origins story for Ms Croft and an adventure that took a fair few cues from the likes of *Uncharted*, *Hunger Games* and *Far Cry* and others, essentially imitating its imitators.

RISE OF THE TOMB RAIDER 2015

■ The latest from those holding the hand of Lara, *Rise* shows more growth for the character and, more importantly, reintroduces a lot more tombs. *Rise* was followed by *Shadow Of The Tomb Raider* in 2018, although it wasn't as well received.

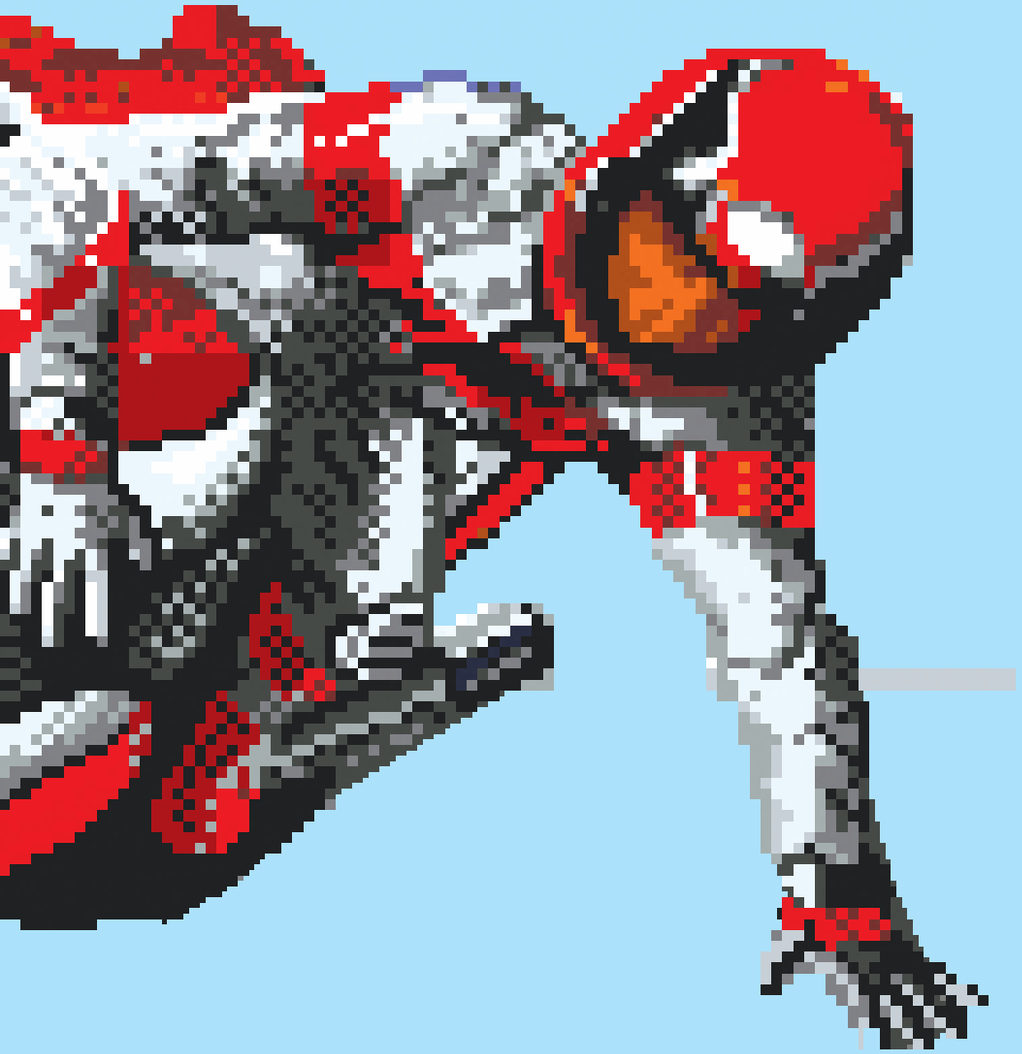
Illustrations on all spreads: Freepik

GRAZING

SADDLES

THE COMPLETE HISTORY OF ROAD RASH

Stuart Hunt dons a crash helmet and charges his trusty Taser to take a look back at the blood and tyre marks left by the Road Rash series, one of the most technically impressive racing series to emerge from the 16-bit era, and goes mano a mano with Mega Drive series producer Randy Breen



Riding a motorcycle can be a dangerous pursuit. The closest thing a human can come to sitting on a rocket and lighting the fuse without going into space, it's no surprise that to ride one safely and sensibly you have to dress like you're about to be shot out of a cannon. If you're a responsible rider, though, and take the relevant safety precautions – such as always wearing a crash helmet, and never, ever attempting to ride one wearing flip-flops – motorcyclists will tell you that there is simply no thrill quite like it. Translating that thrill into videogames, however, has always been the challenge sitting before game developers. The danger and inherent buzz that comes from riding a motorcycle in the real world is palpable and omnipresent, and impossible for videogames to re-create. Understanding this, it was a clever strategy by EA in the early Nineties to look to inject a sense of exhilaration by another means.

Though many talented people were involved in making *Road Rash* the classic game that it was, there were really two men integral in getting it made. The first man was Randy Breen. Game designer and producer of the *Road Rash* series for the Mega Drive, Randy, a biking enthusiast, joined EA right at the start, in 1986, at a time when the company's payroll was fewer than 100 people.

"In the early days, EA was a publisher managing external developers creating original titles. Most of these were produced for PCs like the Commodore 64, Apple IIc and the IBM PC," recalls Randy. "EA was slow to migrate to the Nintendo Famicom largely because of the Atari console bust in the mid-Eighties; by the late Eighties EA had started to build some internal development capacity. We began some in-house R&D on the Famicom to engineer a road effect for a driving game. The decision was made to shift focus and make a big push on the Sega Genesis with its introduction to the US market. Engineering on the road effect was then moved to the Genesis."

The person responsible for that road effect, and the second key player in this story, was Carl Mey. Working as technical director for EA in 1989, one of Carl's first projects was to create a banked road effect for a brand new NES racing title. However, he soon realised that while the console could create an impressive road-scaling effect, banking would be stretching its capabilities a little too far. His efforts were not wasted, though, as it was this effect that was adapted to the more- ▶

> "I WAS BIG INTO MOTORCYCLES AND THOUGHT THEY COULD ADD MORE ENTERTAINMENT VALUE THAN CARS"

▶ powerful Genesis and helped to generate the impressive road effect in *Road Rash*.

In an interview with our sister magazine **games™** discussing the making of the first game in the series, Carl, who also worked on the Mega Drive hit *Desert Strike*, explained in detail about how the effect worked and how the technology behind the *Road Rash* series started to take shape: "I created a super-fast scaling algorithm that allowed several scaled sprite images in addition to the road effect. My effect was exactly like Mode 7, except there was no rotating around the Z-axis. While optimising the code I figured out that the interrupts I used to set scale per scan line were using about 60 per cent of the CPU, and, at the time, Edwin Reich was working on a true 3D version of *Blockout* for the Mega Drive, so we adapted the technology for *Road Rash*. We were able to render all the detail for the road, including the dashed lines. It was all smoke and mirrors but it was actual 3D rendering."

Randy produced and assisted on a number of driving games before working on *Road Rash*, including *Ferrari Formula One* and the acclaimed PC and Amiga game *Indianapolis 500: The Simulation* – a game on which he worked as assistant producer and that gave him the initial spark to bring a motorcycle racing game to the Mega Drive.

Developed by the now-defunct developer Papyrus Design Group, and designed by studio founders David Kaemmer and Omar Khudari, *Indianapolis 500* is widely regarded as being one of the first true arcade racing simulators to appear on home computers. A novel departure from arcade racing titles of the time, the game offered players the chance to compete in a faithful representation of the 500-mile Indianapolis 500 race, and allowed players to tweak the settings of their vehicles, test their setups in practice races, and even race a full 200 laps around an impressive virtual version of the Indianapolis Motor Speedway.

"*Indy 500* by Papyrus was truly a great game and ahead of its time, but it was incredibly difficult to play," says Randy. "Racing takes a lot of discipline and focus. I felt there was opportunity to make driving games more fun and reach a wider audience. I was big into motorcycles and thought they could add more entertainment value with characters you could see rather than with cars only visible from the rear or a view from inside the cockpit that occupied most of the screen."

Randy put forward his idea to his bosses, but it was met by some resistance, as the thinking was that cars were more popular than bikes. But there was more behind his desire to do a motorcycle racing game than simply his own love of motorcycles; there was a technical reason too.

"There was a sprite limitation on the Genesis. More than seven sprites on a line and the sprites would start flickering and disappear randomly. A car on screen at reasonable size could take three or four; a bike could be shown with one or two, so we could effectively get more action on screen with motorcycles," Randy continues. "I took inspiration from my passion for bikes and experiences in the thriving sport bike culture in the hills and back roads around San Francisco, video of shoving and kicking during tight racing in MotoGP, biker gang action in *Akira* and the bike pump scene from *Breaking Away*. I pitched a concept entitled *Road Rash On Mulholland Drive*. It was ambitious given the capability of the console but we were able to include much of the original concept."

Following that colourful pitch, *Road Rash* was eventually given the go-ahead, with Randy leading the internal team that worked on the game. After a year of development, the pressure was on for the team to showcase a demo of the game. Randy remembers the moment well.

"Our first demo didn't go well," he says. "EA was showcasing Genesis products and demonstrating them well before launch. We struggled to maintain a reasonable frame rate and the animations weren't effective. There was scepticism that we could pull it off, but over the next few months Dan Geisler and Walt Stein [*Road Rash*'s co-designers] managed to improve the performance and Connie Braat did a great job of

» *Road Rash* featured an impressive road-scaling effect and some insane physics. You could never do this in *Hang-On*.

CONVERSION SCRAPERS

Your guide to every conversion of Road Rash

AMIGA

■ A very decent conversion that actually looks crisper than the original, although it isn't quite as smooth. There is little separating these conversions, to be honest. The Amiga version has loading times, joystick controls, two fewer fire buttons, and it doesn't sound as crisp. That's probably about it.

GAME BOY

■ It would be ambitious to try to cram any 3D racing game onto the Game Boy, let alone one with combat elements. Somehow, though, the handheld manages to do a competent job here. Certain elements are understandably lost in the port, though: you're restricted to punching and can't purchase new bikes.

GAME BOY COLOR

■ Despite the name, the Game Boy Color version of *Road Rash* was actually a conversion of *Road Rash II*, and a decent one at that. While the racing is a wee bit sluggish, we can't fault the graphics, which were done by Stoo Cambridge. This version also included kicks, weapons, the bike shop and a two-player link-up mode.

MASTER SYSTEM, GAME GEAR

■ Considering that the original was said to be pushing the technical limits of the Mega Drive, that Probe Software managed to squeeze the entire game onto the Master System was an incredible feat. A fantastic conversion that isn't as smooth or quick, nor does it sound as good, but it impresses in every other area.

getting the animation right. Arthur Koch and Matt Sarconi, among others, were able to strike a great balance between realism and the impressionism required by the platform."

Set from a third-person viewpoint, Road Rash saw players take part in an illegal road tournament divided between five races, all taking place on roads based on California State Routes, including Sierra Nevada, Palm Desert and Redwood Forest. As players progressed through the game, rather than new tracks being added to the game, existing ones would get progressively longer, while the competition got faster.

As well as its implementation of combat, there were a number of other aspects that made *Road Rash* a great racing game. Its impressive pseudo-3D landscape was lavishly dressed with realistic scenery and interactive objects. Players not only had to be wary of other riders, but also the local wildlife, oncoming traffic, roadside fixtures and even police officers, who pursued racers on patrol bikes, beat them with nightsticks and busted them if caught.

There were even a number of simulator-style touches in the game. Its HUD featured wing mirrors to offer a full 360-degree view of rival racers, and when players did come off their saddles they kept full control over their biker and had to direct him back to his smoking high-performance wreck.

EA injected a real sense of personality into the game too. Rival racers were given distinct characters and delivered between-race banter to create an immersive racing world in which players really felt like wet-eared rookies trying to climb its ranks. And players could use money earned from races to purchase superior performance bikes or fix their old battered ones. Speaking of the bikes, because of the violence in the game, EA was unable to secure official licences from manufacturers and so *Road Rash*'s garage instead comprised soundalike bikes such as the Panda, Shuriken and Kamikaze – Honda, Suzuki and Kawasaki, respectively – and the ultimate prize for any rasher, the powerful Diablo 1000, which was based on a Ducati. From the realistic physics that saw bikes get satisfyingly launched high into the air, to the game's signs that could actually be used to determine the next turn of the road, *Road Rash* was full of immersive little touches.

Road Rash took the team about 21 months to develop, and it was released in the spring of 1991. Following its unsuccessful first unveiling a year into development, the early kinks had been ironed out and it won over gamers and critics alike. And the success it saw was probably just as much down to the platform it appeared on as its quality. The game's edgy, brutal sports spin on the racing genre found an effortless fan base among the teenage Mega Drive audience, with its user base demanding a staple diet of less cutesy videogame fare.

Randy tells us there were plenty of ideas that the team was not able to include in the first game, and so when *Road Rash* became a success, there was an opportunity to implement them and build on the original game in the sequels.

If there was one thing in particular that the original *Road Rash* was sorely lacking, it was simultaneous multiplayer. While it did feature a two-player mode, it saw players having to take turns in their own single-player game, which simply wasn't the same. Thankfully, though, EA remedied this in the sequel by offering two players the chance ▶

to compete in three flavours of multiplayer: the original take-turns method, a new split-screen mode that allowed players to compete in the same tournament simultaneously, or a duel game called Mano A Mano, in which two players raced head-to-head without NPC riders on the five game tracks.

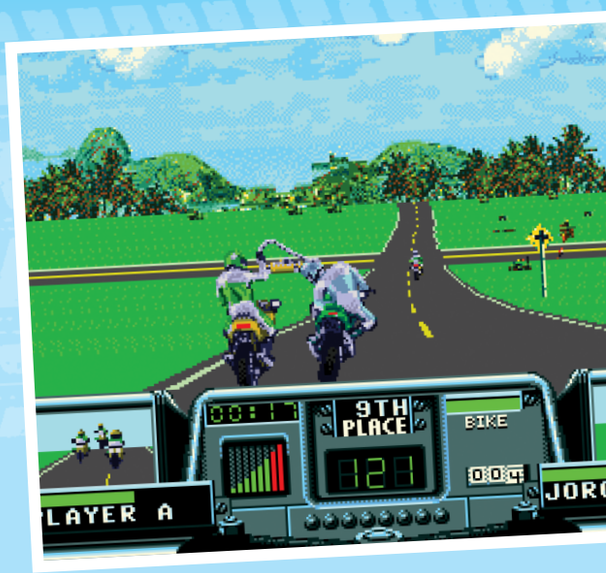
Road Rash II's premise again saw players climbing the ranks of an illegal motorcycle competition, but one that was now stretched a little further afield – the tracks in Road Rash II were set in different American states, rather than just California. All the core elements, such as the fighting system, the rival biker interaction, having tracks grow longer with each new class and the bike buying were carried across.

In fact, *Road Rash II* really feels more like fine-tuning than an out-and-out sequel, not that there's anything wrong with that. EA was clearly wise to the fact that fans would want more of the same biker-brawling action, and so improved the formula.

Certainly the most innovative thing that the sequel introduces is a more varied combat system. Chains were added to the melee, and different attacks and weapons now inflicted different amounts of damage on bikers too. Whereas before a few punches to a rival's visor was generally all that was needed to send them spiralling to the tarmac, fights now felt more involved, with bikers trading blows as they weaved between the traffic. In addition, *Road Rash II* also introduced bikes with nitrous oxide injections. Offering players a temporary speed boost over their bike's top speed, the injections were only fitted to the more powerful 'Nitro' class bikes in the game, meaning players had to accumulate quite a bit of cash for the chance to use them. With the success of two *Road Rash* titles, the series was beginning to hit its stride and become a hot property for EA. As a result, three separate *Road Rash* games were then put into development internally, almost simultaneously, for three different machines: the Mega Drive, the Sega CD and the upcoming 3DO.

Formed by entrepreneur and Electronic Arts co-founder Trip Hawkins, The 3DO Company had partnered with a number of big consumer electronics companies for the manufacture of its new state-of-the-art 32-bit CD-based console, the self-titled 3DO. Electronic Arts was one of its partners and supported the system in a software capacity, releasing exclusive games for the machine based on its most popular franchises of the time: *FIFA*, *Need For Speed* and *Road Rash*.

The 3DO version of *Road Rash*, simply titled *Road Rash* despite its differences to the original, can almost be seen as a remastering of the concept rather than a sequel or remake. Regarded by many as the pinnacle of the series, it takes all the core *Road Rash* staples and exposes them to the 32-bit processing power of the 3DO to create a nitrous-injected version of the game, boasting faster gameplay, photorealistic visuals and a great soundtrack too.



It returns to the California setting of the first game, and sees two of the original tracks make a return: Pacific Coast Highway and Sierra Nevada. The gameplay, weapons, fighting system and way players progressed through the game remained the same as in previous games. Players once again had to climb the competition ranks by racing on slowly unfurling roads, which now featured branching sections, and purchasing better bikes with race winnings, but this time the game was divided into two modes: Thrash mode, a pick-up-and-play arcade game in which players picked a race and were thrown straight into the action; and Big Game mode, in which players picked a specific biker with a signature bike and a different skill set and then played through a sort of career mode.

The visuals received the biggest overhaul, with the cartoonish character sprites dropped for photorealistic ones, which lent the game a new meaner, grittier look that suited the series

SKITCHIN'

Understandably wanting to capitalise on *Road Rash*'s success by repurposing its impressive engine in other scenarios, Electronic Arts looked to the world of inline skating for the 1993 Mega Drive game *Skitchin'*. Designed by David Warfield, it was positioned to take advantage of the rollerblade craze that was sweeping America at the time, and in terms of its gameplay, it 'skitched' – the art of clinging to the back of a car while skating – on the back of *Road Rash* by mixing combat with racing. It's not a complete carbon copy, though, as it introduces a few new ideas to the formula. It adds stunts to the mix and has a better upgrade system, allowing players to purchase new wheels, skates and safety equipment with their race winnings.

brilliantly, and EA also made the 3DO *Road Rash* more immersive: rival bikers each had a distinct personality that reacted dynamically to what was going on in the tournament, and players had a status meter to help them determine how much notoriety and respect they were earning in the game from their fellow rashers.

To finish off this exciting new next-gen interpretation of *Road Rash*, Randy and the team would also make use of the high-quality sound and FMV capabilities of the 3DO by including a memorable rock and grunge soundtrack and live-action cut-scenes in the game. As Randy explains, though, getting these elements into the game wasn't an entirely painless process.

"I wanted to really exploit the CD, which led to the music video concepts and the soundtrack featuring Soundgarden," he says. "I was a fan at the time and our marketing director, Leslie Mansford, had a relationship with A&M Records – she introduced me. I never got a chance to meet Chris Cornell but I was told he was a fan of the Genesis games and played them on the tour bus. Getting a music deal done was a nightmare. There was no precedent – these kind of deals hadn't been done yet and licensing expectations were based on movie deals. We eventually got it done, perhaps made easier by their own interest in the game. We used the music in the presentation and music videos and had the fortune of including newly released songs from *Superunknown*, just as Soundgarden was really breaking out. I would have loved to include streamed music in the game but we were already streaming graphics and it was deemed too challenging to get it done."

"I directed and rode some of the bikes in the video along with art director Jeff Smith and other local AFM club racers from the area," Randy adds. "This included my own yellow Yamaha FZR 1000, which was featured on an earlier *Road Rash* cover, along with a red Ducati 900SS, which was a prop we had purchased for shooting the animatics. On the last day of the video shoot I wheelied the bike away from two police cars in San Francisco but had to hit the brakes hard to keep from going through the red light at the next intersection. The front tyre slid on the greasy San Francisco street and I laid the bike down. Marketing found the wrecked bike useful and after making a few trips to trade shows it found a home in the EA corporate lobby, where it sits today."

The other two games, the US-only Sega CD version and *Road Rash 3: Tour De Force* used content derived from the 3DO game. The Sega CD version was essentially a 16-bit remake of the 3DO game using the original Mega Drive engine. Impressively, it keeps the same tracks, menu screens, modes, music and FMV cut-scenes, and it's only when you actually enter a race that you notice a difference – the game looks like a prettier and smoother version of *Road Rash 3*. It doesn't matter, though, because it's still a great *Road Rash* title. It even manages to get one up on the 3DO version by managing to have streaming music played during the races.

Though Road Rash 3: Tour De Force, the final Road Rash game released for the Mega Drive, also used content from the 3DO game, it was a completely new instalment, with only superficial connections to its 32-bit stablemate – most notably in the way it attempts unsuccessfully to display photorealistic bikers. As the game's title implies, this time the tournament went international, leaving America for tracks set in six countries, including Brazil, Germany, Australia ▶

» Atypical of most racing games of the time, *Road Rash*'s tracks gradually increased in size, with rival bikes becoming more deadly and the roads more congested.

» *Road Rash II* was the first game in the series to include simultaneous multiplayer. It became a staple of the series until the release of *Road Rash 3D*, before returning in *Jailbreak*.

» The sequel introduced comical cut-scenes that flashed up at the end of each race… or if you got busted for being rubbish, like us.

VEHICULAR MANSLAUGHTER

Road Rash wasn't the first game to mix combat with racing…

S.T.U.N. RUNNER

■ Atari's fantastic polygonal racing game, which ran from its *Hard Drivin'* hardware, remains one of the best examples of high-octane vehicular combat ever made, in our opinion. Sitting behind the wheel of a state-of-the-art bobsled, players had to scud through tunnel networks and maintain an optimum speed by keeping to the correct racing line and blasting away any poor vehicles that were unfortunate enough to be in their way.

FIGHTING ROLLER

■ Possibly the campest fighting game ever made, *Fighting Roller* mixes the radical world of rollerskating with the equally radical world of unarmed combat. Controlling a spandex hero with a sun-coloured mullet, this into-the-screen racer sees you jumping and dodging obstacles while occasionally fighting pathetically with rival skaters who appear from the bottom of the screen. It's colourful and a bit odd. That's all it has going for it.

MACH RIDER

■ A launch game for the NES, *Mach Rider* is a distant relative to the *F-Zero* series and was actually based on an early Nintendo toy from the Seventies. A *Hang-On*-style racing game with shoot-'em-up bits, players take on the role of a motorcycle superhero who stars in a *Mad Max*-style yarn about patrolling roads, avoiding obstacles and blasting away Quadrunners – an unsavoury gang of bikers who have somehow managed to enslave the world.

SEICROSS

■ This early side-scrolling racing game from Nichibutsu is set in the distant future and finds players storming an enemy fortress on a hover bike. Enemy riders harass the player by shunting them into objects and the scenery, and you can retaliate by either bumping them back or blasting them into flaming wrecks with your guns. As everything in the game kills you outright, the action is pretty intense and frustrating.

3D DEATHCHASE

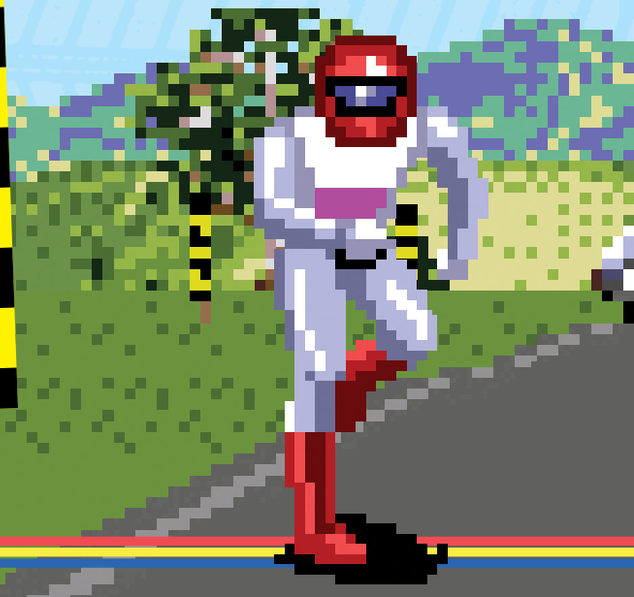
■ As **Retro Gamer** has a policy whereby it cannot go more than three issues without mentioning *3D Deathchase*, we've had to include it here in order to keep the magazine ticking over. Mervyn Estcourt's popular 3D bike shooter was an absolute marvel when it appeared on the Spectrum. Taking its cues from the speeder bike chase in *Return Of The Jedi*, the game sees players dodging trees and blasting away rival bikers. *Action Biker* meets *Doom* it most certainly wasn't.

▶ and the UK. It was another solid entry in the series, although its visuals aren't as crisp as *Road Rash II*, and once again it's a fairly safe sequel that doesn't play about with the formula much. The only notable thing it adds is the chance to purchase specific upgrades for your bike.

Road Rash 3 wasn't as popular as its predecessors, and with *Road Rash* for the 3DO raising the bar and showing fans what they could now expect from next-gen *Road Rash* games, the series finally had to wave goodbye to the platform that made it a success. After finishing work on *Road Rash* for the 3DO, Randy then worked as executive producer on *Road Rash 3D* for the PlayStation, and also offered creative direction on the following game in the series, *Road Rash: Jailbreak*. Wanting to keep the franchise at the front of the pack in a technical sense, EA had felt a pressure to move away from the sprite-based graphics of old and make its next *Road Rash* title a completely new 3D polygonal racing game instead.

***Road Rash 3D* was an ambitious project that struggled to balance the racing, combat and an extra dimension.** The fighting hardly seemed to get a look in during races, with computer riders bickering and fighting among themselves, and as a result the game felt more like a straight arcade racer than a *Road Rash* title. It also lacked any kind of multiplayer mode, which disappointed fans, and visually it looked a little choppy.

"The first PlayStation version of the game was a port of the 3DO, but the trend on PlayStation was 3D and we wanted to transition *Road Rash* away from 2.5D graphics. This turned out to be extremely ambitious given the capability of the platform," answers Randy when we ask him about some of the issues in *Road Rash 3D*. "Articulated characters and doing collision detection on animated bikes with detachable objects such as weapons turns out to be far more complex than 3D car games of the time. We were pushing the limits of what the machine could do but were confined by the expectations of the game's concept. The first 3D version took longer than expected as a result, in development for more than two years. Neither of them fully reached their potential in my view given hardware



limitations. The freedom of 3D also produces far greater range of movement, which adds complexity to the gameplay. As a result, these products lacked some of the ease of use the earlier titles had. There was also more creative struggle over the balance of fighting versus racing within the team."

***Road Rash: Jailbreak* was released a year later and was notable for dropping the tournament premise for a story that saw players climbing the ranks inside rival biker gangs to spring a mate out of the clink.** The game added a few game modes and twists to the *Road Rash* formula, such as introducing road hogs to the bike roster, a fun sidecar mode that put one player in charge of steering while another concentrated on the fighting, and a pursuit mode called Five-O that let players take on the role of a motorcycle cop tasked with chasing down and busting speeding bikers. Clearly trying to address the criticism that *Road Rash 3D* was a little light on the combat, the game featured 11 weapons, including cattle prods and nunchaku, and also attack combos and special moves.

A few months before *Jailbreak*'s release, Nintendo 64 owners also received a taste of 3D *Road Rash* by way of *Road Rash 64*. The only game in the series not to have been designed and developed by Electronic Arts, the *Road Rash* property was licensed to THQ and the game produced by Pacific Coast Power & Light (now Locomotive Games), a studio co-founded by former EA employee and EA Sports founder Don Traeger.

Sharing a number of similarities with *Jailbreak*, at one stage during development it was thought that the games were one and the same. *Road Rash 64* is widely considered to be the strongest 3D entry in the series to date, harnessing the 64-bit power of the N64 to throw plenty at the screen at once. The action manages to show a large number of riders fighting on screen, while maintaining a decent frame rate. This does come at a slight cost, however. Detail is dropped, and the riders have a strange cartoon aesthetic to them, but this was a conscious design decision to ensure that the game felt fast and maintained smooth gameplay throughout. It's a satisfying trade-off for us as it allows the game to run at a sickeningly fast pace. Similar to *Jailbreak*, *Road Rash 64* also had the same strong emphasis on combat, and a lot of the same weapons appear in both games. In *Road Rash 64*, though, they could be used in combination. For example, players could use a Taser or a cattle prod to stun rival racers and then follow up with a swing of a bat or club to knock them off their bikes. *Road Rash 64* offered more control over the races than other games in the series, allowing players to adjust variables such as traffic and pedestrian congestion, as well as the number of police and opponents. It's a small but important addition to the series as it makes the combat feel a little more interesting and allows for a small amount of strategy, too.

> "THE 3DO GAME RAISED THE BAR AND SHOWED FANS WHAT THEY COULD EXPECT FROM NEXT-GEN ROAD RASH GAMES"

In 2000, a short time after the release of *Jailbreak*, Randy left EA to join LucasArts Entertainment, where he worked as vice president of product development. Today, he is the CEO of SGN (Social Gaming Network), one of the largest game publishers on the iPhone.

Sensing that *Road Rash* is clearly a series that is still very close to Randy's heart, we finish our time by asking the industry veteran if he's aware of any attempts by Electronic Arts to revive the *Road Rash* franchise since his departure, and how he would feel about seeing a new *Road Rash* game released today without his involvement.

"I'm aware of a few attempts by EA to revive the series, each terminated for one reason or another thus far. My view is the core teams of the early versions had a clear vision for what we were creating. I suspect later attempts may have lacked the focus or the passion for the concept. *Road Rash* struck a balance between racing, action and entertainment and managed to be a bit edgy and funny without going too far over the top. It is one of very few original properties created by EA. I'm very proud of the work our teams did at the time. I believe the theme is as relevant now as it was then and much more viable in 3D with today's hardware. My hope is that EA will revive the series with the same care and passion."

Sadly, while Electronic Arts haven't released any more *Road Rash* games, the franchise's spirit lives on. Sega recently revealed that *Road Rash II* will be included on its incoming Sega Mega Drive Mini and there are a number of Road Rash clones available on the market, including 2017's *Road Rage*, as well as *Road Redemption*, which was released the same year. It may no longer be a relevant series anymore, but it certainly isn't forgotten. ✱

» *Road Rash 64* might not look like anything special, but it's loaded with options and is incredibly slick. Its multiplayer also supported four players.

» For many people, *Road Rash* on the 3DO is the apex of the series. The game was later ported in its entirety to the PlayStation.

Special thanks to Trip Hawkins for putting us in touch with Randy Breen and to Randy himself for answering our questions

retro GAMER READERS' CHOICE

TOP 25 MEGA DRIVE GAMES

With the Mega Drive Mini due for release we asked readers what their favourite Mega Drive games were. David Crookes reveals the classics that made your list

Disney's Aladdin

DEVELOPER: VIRGIN INTERACTIVE
YEAR RELEASED: 1993 **GENRE:** PLATFORMER

25 **Of all of** the versions, the Mega Drive's *Aladdin* was indisputably the best. Surprisingly put together by legendary developer David Perry in just 99 days, it may have been a platform game – the staple genre of the majority of film tie-ins from the Eighties and early Nineties – but the cartoon graphics, silky smooth animation and diverse nature of the 11 levels was inspired by *Sonic*. It therefore had a frenetic pace and numerous collectables with flowing action that remains great fun.

Jungle Strike

DEVELOPER: ELECTRONIC ARTS
YEAR RELEASED: 1993 **GENRE:** SHOOT-'EM-UP

24 **A chopper title** that was so good it kept a popular series going for three more games, *Jungle Strike*'s strategical elements and full-on airborne blasting ensures its worthy place in our readers' top 25. The wealth of missions meant that gamers played for lengthy periods of time and, while let down by the sound every now and then, there remained a feeling of being immersed in a strong battle against an intelligent enemy. Well-ported, its natural home was within this original Mega Drive version where, aggressive war-mongering aside, design and control reigned supreme.

Rocket Knight Adventures

DEVELOPER: KONAMI
YEAR RELEASED: 1993 **GENRE:** PLATFORMER

23 **Seamless blending of** levels and the feeling that this first Konami game for the Mega Drive threw every graphical trick it could into a big pot, *Rocket Knight Adventures* was impressive. This was a game that oozed innovation (save for the boss battles) and higher difficulty levels lent it a challenge no gamer would want to live without experiencing.

Shining Force

DEVELOPER: CLIMAX ENTERTAINMENT
YEAR RELEASED: 1992 **GENRE:** RPG

22 **A shining example** of a fine fantasy RPG, this turn-based tactical exploration of the Kingdom of Guardiana had the ability to see enemies in advance, giving players ample time to work out the correct and most intriguing strategy to employ in order to bloodthirstily slay them in combat. With elements of steampunk and a well-devised plot that employed humour and involved a great range of characters, *Shining Force*'s grid-based action and slick presentation made it an instant classic and it was recognised as such by many who played it back in 1992. Sure, there are some bizarre moments in the English translation – Lug, Luke, gah, it's so confusing – but that didn't stop it from getting into *Mega*'s Top 33 of all time and neither, it seems, did it bar it from entering our Top 25. Play it again today on iOS (like many other Sega classics) for pure retro gaming on the go.

ToeJam & Earl

DEVELOPER: JOHNSON VOORSANGER PRODUCTIONS
YEAR: 1991 **GENRE:** ACTION/ADVENTURE

21 **The cover screamed** 'jammin' and it seems this totally cool and chilled-out game struck a chord with readers. Everyone likes a laugh, and ToeJam & Earl were a comedy duo to rival some of the greatest. The slow build-up at the start of this top-down action game soon gave way to plentiful giggles, and the developers no doubt had a ball when packing in their belly dancers, nerds and bogeymen among other assorted weird happenings, most of which parodied urban culture in the Eighties. *ToeJam & Earl* came into its own, in particular, when the two-player mode kicked in to allow gamers to share the experience with a buddy. While it wasn't a hard game to beat, the tone of the game drove players forward (albeit sometimes at a sedentary pace) and there was a sense of never quite knowing what was to come.

QuackShot Starring Donald Duck

DEVELOPER: SEGA AM7
YEAR: 1991 **GENRE:** PLATFORMER

19 **Perhaps readers were** dewy-eyed over Dewey (and Huey and Louie). *QuackShot* proved that older gamers could enjoy some Disney action, but the beautiful graphics were marred by slow gameplay. This was perhaps better for newbies.

John Madden Football '92

DEVELOPER: ELECTRONIC ARTS
YEAR: 1991 **GENRE:** SPORTS

18 **The game may** have lacked NFL and NFLPA licences, but EA's second title to feature the legendary American football commentator started the annual tweak-the-gameplay trend that kicked off a long-running franchise. And boy, it was a joy to watch that crowd celebrate.

Thunder Force III

DEVELOPER: TECHNOSOFT
YEAR: 1990 **GENRE:** SHOOT-'EM-UP

17 **Like *R-Type*, this** horizontally scrolling shoot-'em-up excelled throughout, searing eyeballs with sharp sprites, polished parallax scrolling and bad-ass backgrounds that made the rat-a-tat waves of battling baddies and their barrage of bullets a pleasure. Great bosses too.

Golden Axe

DEVELOPER: SEGA AM7
YEAR: 1989 **GENRE:** SCROLLING FIGHTER

16 **One of the most** well known Mega Drive games in existence, even for those that didn't play it. *Golden Axe*'s fun two-player mode made this scrolling fighter shine, as players head butted, kicked and sliced their way to victory with more than a nod or two to the *Conan* films.

Ghouls 'n Ghosts

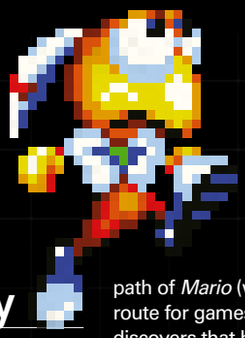
DEVELOPER: CAPCOM/SEGA
YEAR: 1989 **GENRE:** RUN-AND-GUN

15 **Straight from the** arcades to home machines, this run-and-gun classic (converted by Sega) is just as frustrating as the arcade original. It remains a fantastic port however and had owners grinning at their SNES-owning friends. Until *Super Ghouls 'n Ghosts* came along…

Desert Strike

DEVELOPER: ELECTRONIC ARTS
YEAR RELEASED: 1992 GENRE: SHOOT-'EM-UP

20 **The subject matter** of *Desert Strike* is as relevant today as it was back then, with the affairs of the Middle East still firmly on the agenda. As befitting such a scenario, it was rather political, referencing the inability of the UN to take direct action against a war-mongering dictator and his army. However, it was also a sophisticated shoot-'em-up that was a world away from the more conventional examples of the genre, proving so popular, it was made for a host of other machines. Gulf War inspiration aside, *Desert Strike* had a rather fresh approach to war, although lead designer Mike Posehn had never made a game before he tackled this project. He ensured the game had everything you needed for a rich experience, be it maps, cut-scenes to explain the action or mission details to work out what to do next. The five main missions were supplemented with ten sub-assignments, lending depth and variety, as well as ensuring that gamers would be able to feast their eyes on the wonderful graphics and let their ears take in the Ron Hubbard sounds of war for a number of hours.



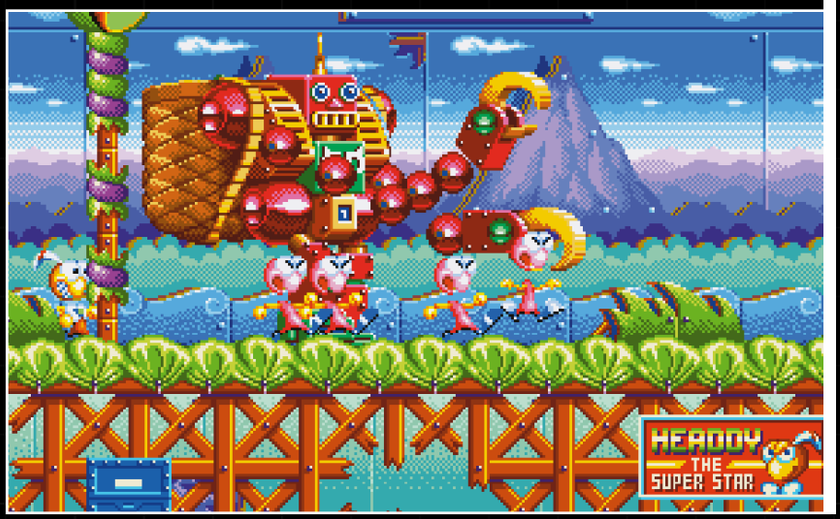
Dynamite Headdy

DEVELOPER: TREASURE

YEAR RELEASED: 1994 **GENRE:** PLATFORMER

14 **Developed by Treasure,** the bright, colourful visuals of *Dynamite Headdy* will have stuck in the heads of all the gamers who tried this genre-busting platformer back in 1994. An all-so-knowing and relevant tale of a puppet called Headdy in pursuit of a girl's attention, it could easily have gone down the path of *Mario* (which, admittedly is a great route for games to take). After all, Headdy discovers that his girl and his friends have been kidnapped. What to do? Go and rescue them.

But where *Dynamite Headdy* succeeded was in turning perception upside down, literally at times. It also relied on getting the right head on, whether it be a strength-increasing offensive noggin or one that would let him snooze. It meant that, even for platform fans, it was a new experience, helped along by lots of useful characters.



Flashback

DEVELOPER: DELPHINE SOFTWARE INTERNATIONAL

YEAR RELEASED: 1992 **GENRE:** PLATFORMER

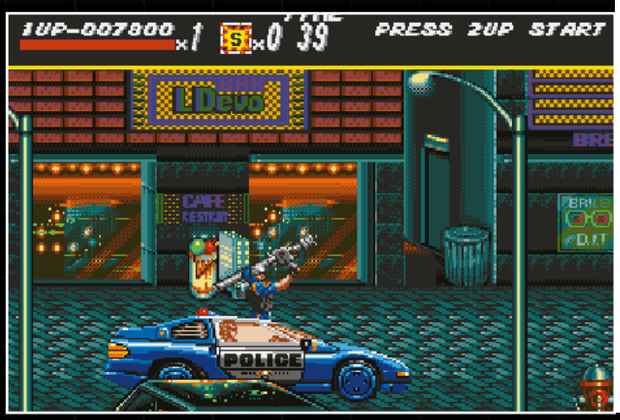
13 **It is the** best selling French game of all time, according to Guinness World Records, and US Gold brought it to the wider masses. The way the screens slid in rather than scrolled when the player neared the edge, gave it an old-school feel even when it was released in 1992, but the rotoscoping and use of FMV made it feel part of the future. *Flashback* became a massive hit and was marketed as being a CD-ROM game on a cartridge due to its huge scope and size. All of the backdrops were hand drawn, and so the style was very much unlike anything that came before it. This lent it an ambitious edge which could be seen in the manner of play, the realms of role-play coming to the fore in level two and enemies suddenly feeling sharper and more intelligent the deeper you go.

Streets Of Rage

DEVELOPER: SEGA AM7

YEAR RELEASED: 1991 **GENRE:** SCROLLING FIGHTER

12 **At the time** of release, many regarded *Streets Of Rage* to be the Mega Drive's best fighter. We won't say it was the best ever, for reasons that will undoubtedly become clear later, but it was a two-player combat game of excellence that had scores of enemies battling against you over eight levels. A worthy alternative to Capcom's *Final Fight*, which was exceedingly popular on Nintendo's SNES, it may have been a little slow (particularly if you played as Adam) but there was no denying that the game's combat made it highly satisfying to play. It had a great multiplayer mode as well, giving it the edge over the SNES ports of Capcom's popular fighter. Add in some truly astonishing trance-style music, courtesy of Yuzo Koshiro and Motohiro Kawashima, and it becomes easy to see why Sega's scrolling fighter remains so popular.



Strider

DEVELOPER: CAPCOM/SEGA

YEAR RELEASED: 1990 **GENRE:** PLATFORMER

11 **This is quite** simply one of the finest arcade ports of its time on Sega's machine and it still manages to impress today. Sega handled the ambitious port itself, and the end result is a magnificent early release for the Mega Drive that proved just how powerful the 16-bit console was. *Strider* remains beautifully animated as he fights his way through the game's huge levels and, while certain sections are prone to some rather irritating sprite flicker, it's still amazing to see just how polished Sega's port actually is. Full of inventive level design - including the best second level ever - and featuring a bewildering array of crazy bosses to battle through, *Strider* is Capcom at its most inventive and creative and it remains a sensational platformer. Filled with dazzling set pieces and excellent tunes, *Strider* on the Mega Drive was arguably one of the best ports of the game, with only the Sharp X68000, PC Engine and PlayStation versions bettering it. Darran is still in shock that it didn't make your top ten.

Thunder Force IV

DEVELOPER: TECHNOSOFT
YEAR: 1992 **GENRE:** SHOOT-'EM-UP

10 **Okay, so we** kind of glossed over *Thunder Force III* and that is because, as great as it was, many readers feel this is better. For those reading in America, you may know this as *Lightening Force: Quest For The Darkstar*, a game that rocked to a synth beat and locked to a hair-pulling regional program that meant European Mega Drive and Genesis owners couldn't play the Japanese version.

Thunder Force IV wasn't a gigantic leap from *Thunder Force III*. It was a bit of gameplay tinkering here, a little polish of the graphics there, and yet the result is considered by many to be the best of the series. It may still be a shoot-'em-up that scrolls to the side, but you could go up further than the boundaries of the 14-inch telly that you had in your bedroom and it felt as if you had loads more freedom.

Looking as if the graphic artists had stayed up day and night for months on end due to the incredible detail of the backdrops and sprites, it is fair to say that the programmers, on the other hand, may have had some sleep. There wasn't so much innovative thinking going on, especially in terms of speed where slow-down was an issue at times but not enough to make you wince.

However, if something was achieved, then it was a sheer show of power. If nothing else, the game, while starting to feel as if it was just offering standard shoot-'em-up fare, showed the true power of the Mega Drive and you sensed that the achievement could not have been possible on other consoles. With the history of the series behind it, *Thunder Force IV* could afford to push on incrementally rather than make a wholesale change and, today, if you were going to go back and play one of the series' games, you should certainly make a bee-line for this.

Castle Of Illusion Starring Mickey Mouse

DEVELOPER: SEGA AM7
YEAR RELEASED: 1990 **GENRE:** PLATFORMER

9 **Although you may** think home consoles were awash with *Mickey Mouse* games, this was actually only the second outing for Disney's anthropomorphic rodent. It helped to cement the Mega Drive's reputation as a must-have machine, such was the addictive nature and jaw-dropping graphics that combined to make the game so loved. Beautiful parallax scrolling and a range of animated faces brought the world and Mickey to life. It wasn't an incredibly hard game and the obstacles and traps that lay before Mickey were by no means insurmountable. But who could fail to fall for a charming butt-stomp that dispatches Mickey's enemies? Not us.

The Revenge Of Shinobi

DEVELOPER: SEGA AM7
YEAR RELEASED: 1989 **GENRE:** RUN-AND-GUN

8 **Revenge is such** an ugly word, isn't it? But, without wishing to sound corny, it made for a very sweet game. The sequel to *Shinobi*'s 1987 debut turned Joe Musashi into a household name and, while he pounded the streets of his eight districts in a bid to confront Neo Zeed, he got to biff Batman and spring a surprise on Spider-Man among an assortment of other well-known hero-baddies. Such blasé use of said icons (explained away by the doings of a shape shifter) got Sega into some bother and it had to make some later revisions. But that only provides for what is a good yarn – not that a well-animated, sonically beautiful and addictive game would need such assistance.

Road Rash II

DEVELOPER: ELECTRONIC ARTS
YEAR RELEASED: 1993 **GENRE:** RACING

7 ***Road Rash II*** is one of only two racing games in the top 25, showing that either the Mega Drive wasn't really blessed with a vast selection of such titles, or that our readers couldn't give two hoots about many of them. Great for one or two players, and having three bike classes in Ultra Light, Nitro Class and Super Bike, *Road Rash II* had a number of options that included a split-screen game, pure head-to-head and some smacks to opposing riders' faces. The learning curve was spot on too, with the difficulty increased after each section. The good news was that you could just keep going until you fell asleep (not while racing, we hope) and, once you had secured your racing passwords, you could start from where you finished off.

6 Micro Machines Turbo Tournament '96

DEVELOPER: SUPERSONIC SOFTWARE
YEAR RELEASED: 1995 **GENRE:** RACING

While basically *Micro Machines 2*, this version of the top-down tiny racing game was exclusive to the Sega Mega Drive. The game itself was already an enhancement of its predecessor, with different handling techniques that depended on the vehicles and new cars. *Turbo Tournament '96* added the track construction kit from the PC version of *MM2*, as well as updated tracks, meaning that Mega Drive owners could feel special and play the best version of the sequel too. This game wasn't produced by Codemasters but instead was contracted out to Supersonic, a company that was able to play to its strengths and produce a game that was the envy of other console owners at the time.

5 Sonic The Hedgehog 3

DEVELOPER: SONIC TEAM
YEAR RELEASED: 1994 **GENRE:** PLATFORMER

Sonic's first entry in our list and it's predictably high. Sonic's last main Mega Drive game was an impressive refinement of the series, featuring everything that had made the hedgehog so popular but on a far larger scale. Notable for introducing Knuckles to the series, *Sonic 3* also used the lock-in technology that had been created by Sonic Team and Sega Technical Institute for *Sonic & Knuckles*. It's a fantastic platformer with excellent visuals, super slick animation and a superb soundtrack – but according to you, it's not Sonic's best Mega Drive outing.

4 Sonic The Hedgehog

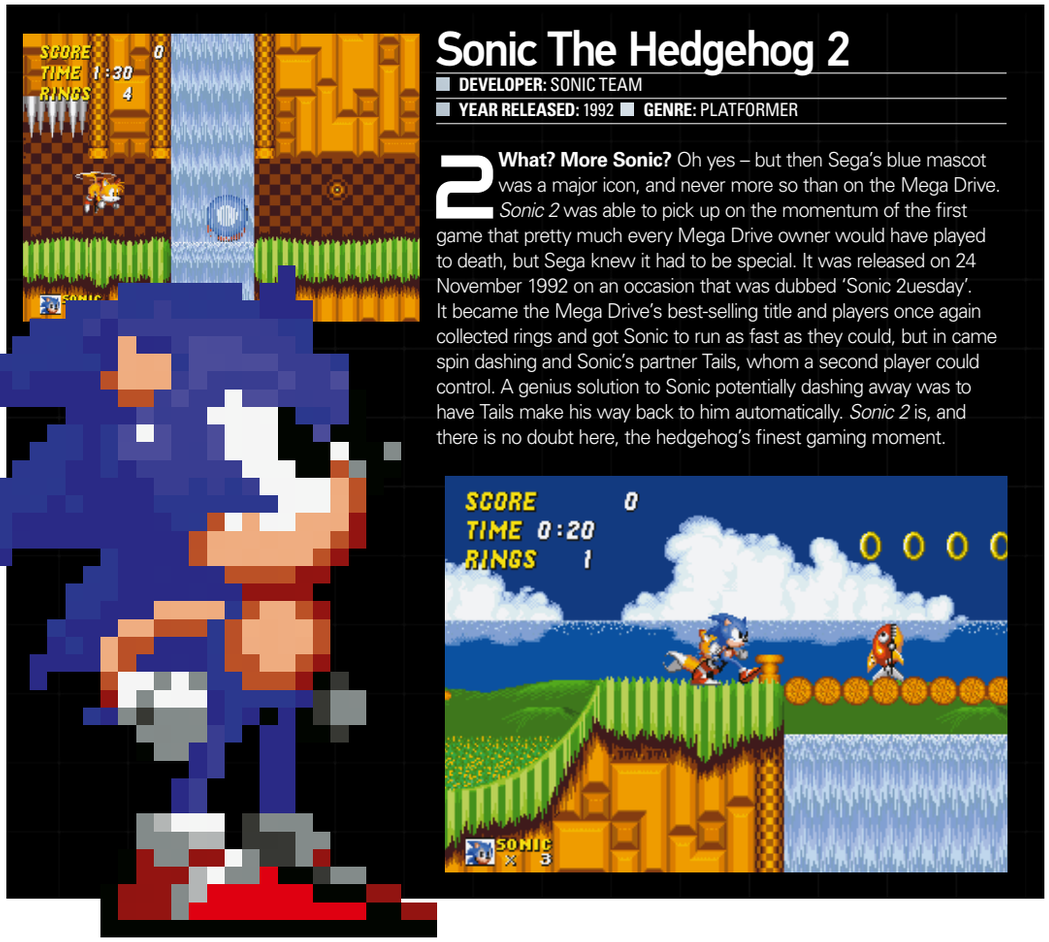
DEVELOPER: SONIC TEAM
YEAR RELEASED: 1991 **GENRE:** PLATFORMER

A true blue classic. *Sonic The Hedgehog* was eventually bundled with the Mega Drive in a move by Sega's Tom Kalinske to draw interest away from the evil-sounding *Altered Beast* that was currently packaged with the console. This shrewd move allowed Sega's new mascot to go toe-to-toe with Mario – not that the fat plumber would ever manage to keep up with Sonic's blistering speed. Bold, sleek and cool, *Sonic The Hedgehog* was as much a statement about Sega's attitude as it was a superb platformer, and it's little wonder that it went on to become one of the system's best games.

3 Gunstar Heroes

DEVELOPER: TREASURE
YEAR RELEASED: 1993 **GENRE:** RUN-AND-GUN

Treasure's Mega Drive debut is one of the greatest calling cards of the 16-bit generation. Packed with imagination, and pulling off graphical tricks that the machine was supposedly incapable of, *Gunstar Heroes* was a revelation upon release and remains a stunning achievement. Like many Treasure games it has superlative visuals, but also understands the importance of great gameplay. *Gunstar Heroes* has tight controls, a clever weapon system (you can combine weapons) and well-structured levels that culminate in fantastic, imaginative boss fights. Treasure would go on to release five more games for Sega's console, but its astounding debut is clearly your favourite.



2 Sonic The Hedgehog 2

DEVELOPER: SONIC TEAM
YEAR RELEASED: 1992 **GENRE:** PLATFORMER

What? More Sonic? Oh yes – but then Sega's blue mascot was a major icon, and never more so than on the Mega Drive. *Sonic 2* was able to pick up on the momentum of the first game that pretty much every Mega Drive owner would have played to death, but Sega knew it had to be special. It was released on 24 November 1992 on an occasion that was dubbed 'Sonic 2uesday'. It became the Mega Drive's best-selling title and players once again collected rings and got Sonic to run as fast as they could, but in came spin dashing and Sonic's partner Tails, whom a second player could control. A genius solution to Sonic potentially dashing away was to have Tails make his way back to him automatically. *Sonic 2* is, and there is no doubt here, the hedgehog's finest gaming moment.

"Streets Of Rage 2 is possibly the best game ever made. Would have given it 20 points if I could"
The Laird

Streets Of Rage 2

DEVELOPER: SEGA AM7 ■ **YEAR RELEASED:** 1992 ■ **GENRE:** SCROLLING FIGHTER

We were surprised that *Streets Of Rage 2* took the top spot as we genuinely thought that it would be a *Sonic* game sitting at the top of your list. Sega's superb sequel strode into the lead very quickly though, and soon began to amass huge support making it undoubtedly your number one Mega Drive game of all time.

Everything about Sega's sequel was bigger, bolder, and well… better. The most noticeable difference was the truly spectacular looking sprites that looked far beefier than the weedy looking efforts shown in the original game. The gameplay had also been greatly refined, with special moves being granted to each character, including an attack from Axel Stone that looked a lot like Ryu's Dragon Punch. As with Capcom's *Final Fight*, pulling off a special move was a great way of defeating multiple enemies at once and also granted you a small amount of invulnerability (at the expense of some of your precious health).

Such strategic use of these moves was vital in order to achieve victory in a game that was hard going no matter how good you became or what difficulty level you decided to play on. However, it was clear that Sega didn't go down the path of merely bolting on a few extras. It re-jigged the entire game and was bigger and better in so many respects, not least in the aforementioned chunkier characters that moved with far greater animation than before.

New characters were also introduced, namely Max Thunder, a huge lumbering tank, and Eddie 'Skate' Hunter, a fast-paced skater who, despite his young age, had no problem leaping onto the backs of strangers and punching their faces in. Blaze Fielding and Axel Stone also returned, ensuring that players would have no problem finding a fighter that would suit their playing style.

The co-operative fighting of the original once again came to the fore, allowing players to team up to pull off silly, showy moves that would decimate enemies and allow you to combat *Streets Of Rage 2*'s occasionally tough difficulty spikes. Bosses were tougher as well, and a lot more inventive, ensuring that you'd keep plugging away until you had scrapped your way through all eight stages.

Sega had even improved the excellent soundtrack, once again securing Yuzo Koshiro and Motohiro Kawashima to create some stirring tunes to accompany all the on-screen fisticuffs. It remains one of the best Mega Drive soundtracks of all time, with the musicians putting in just as much effort as the programmers to ensure that Sega's sequel was better in every possible way. Everything about Sega's ambitious sequel was massively enhanced, culminating in the best scrolling fighter for any 16-bit system. Hell, for many it remains the best scrolling fighter of all time.

Five reasons why it's great

- Each character has their own unique moves and abilities
- There are loads of weapons to pick up and use, from knives to metal bars
- It has one of the best techno soundtracks heard in any videogame we've played
- Graphically superb, the characters are arcade-chunky and the backdrops ooze quality
- Action moves left to right and up and down giving a feeling of exploration as you biff opponents

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TEKKEN

Within a few short years, Tekken had gone from lowly underdog to juggernaut franchise, but behind the scenes times were changing at Namco. Sorrel Tilley sat down with developer Yutaka Kounoe to hear all about the trouble with Tekken

The early Nineties saw an explosion in the popularity of 2D fighting. Inspired by the success of *Street Fighter II*, countless contenders entered the ring to duke it out for the top spot. While *Mortal Kombat* was locking horns with Capcom's golden child, and the likes of *Eternal Champions* were pootling about in the background, Sega had been working on a new breed. *Virtua Fighter* showed that 3D fighting games were the next big thing for arcades, and Namco wanted some of the action.

Yutaka Kounoe was in for a surprise, though. Fresh from working on *Point Blank*, he wasn't expecting his world to get turned upside down. "My role was mainly to ensure that the original arcade version was actually fun to play," he explains to us. "This meant I had to unify the different techniques, while preserving each character's individuality. For this purpose, I spearheaded a tuning team to manage the adjustments. I basically set up and led a Namco version of Nintendo's Mario Club. I also created some of the character motions and things like that. Back then it was the dawning of polygonal animation, so a specialised group working on motion didn't exist yet. The designers had to do it themselves."

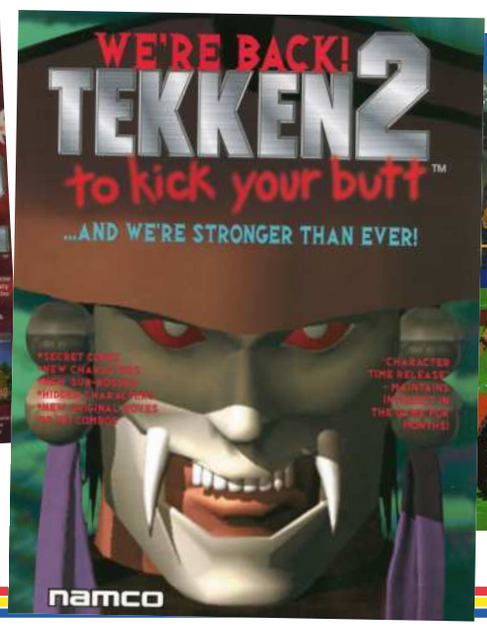
The creation of motion data was hard work because automated motion-capture technology was still in its infancy, meaning that animation had to be done by hand: "Essentially, we hardly used motion capture at all for *Tekken 1* and *2*," Kounoe reveals. "At that point, motion capture was just a developing industry, so we used a magnetic system to capture a portion of the movements we required. This was a method where everything had to be recorded with cables attached, and it wasn't suited to intense action, so we could only use it for reference. However, the promotional department leveraged the appeal of motion-capture technology for marketing, and made out that we had used it extensively. The motion in *Tekken* was minutely adjusted to perfection, frame by frame, so even if we had used motion capture, we would have had to redo most of it anyway."

Motion capture was the least of Kounoe's worries, however; new policies were being put in place that would make *Tekken*'s production unlike any game he had worked on before. "The creation of the *Tekken* series was completely different to the common development process," he says. "Normally, in Namco's corporate culture, game designers would put all of their carefully thought out ideas into a document, and before beginning work on it, everyone would be asked to consider the contents and submit ideas for improving the quality of the product. However, with *Tekken*, many staff members were recruited mid-career from other companies. The result was that this fundamental style of game design was cast aside and we started work on the game in the midst of an inter-developer battle. What's an inter-developer battle? It's a method whereby anyone can freely implement an idea they think is good, and if it's unpopular, other staff members can just overwrite the data with something else! This led to a lot of clashing of egos – it was a project where you'd gradually start to hear staff members spouting lines like, 'There's no way I'm losing to him!' There were members who liked to mouth off too, which pushed people to create things of such high quality that nobody ▶

IN THE KNOW

- **» PUBLISHER:** NAMCO
- **» DEVELOPER:** IN-HOUSE
- **» RELEASED:** 1994
- **» PLATFORM:** ARCADE, PLAYSTATION
- **» GENRE:** FIGHTING

» *Tekken 2*'s promotional material boasted of the new time-release system.



A HISTORY OF VIOLENCE

How Namco established itself as one of fighting games' foremost developers

Knuckle Heads [1993]
Namco entered the booming market for 2D fighting games with this four-player scrapper.

The Outfoxies [1994]
Interactive environments and a range of inventive characters and weapons bring *Smash Bros* to mind.

Soul Edge [1996]
Namco's experiment in gorgeous weapon-based combat spawned an entire series.

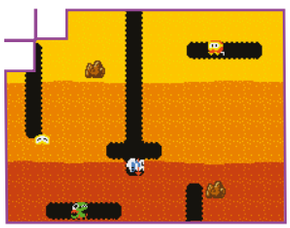
SoulCalibur [1998]
Introduced eight-way movement and a new name, confirming the series as a major player.

Tekken Tag Tournament [1999]
After three main entries, *Tekken* received this team-based spin-off in arcades and for the PS2's launch.

» If you thought *Tekken* was more grounded than *Street Fighter*, think again.

» Fan favourite Yoshimitsu has been practising his swordplay for *Tekken 2*.

» Paul's changed quite a bit since he made his debut in the original *Tekken*.



DEVELOPER HIGHLIGHTS

DIG DUG (PICTURED)
SYSTEMS: ARCADE
YEAR: 1982

POINT BLANK
SYSTEM: ARCADE
YEAR: 1994

TEKKEN
SYSTEM: ARCADE
YEAR: 1994

▶ would be able to say a word against them. That's the kind of unprecedented project it was."

The wiki-style development process led to motion data being overwritten without warning, combo techniques being joined up and disconnected, and daily modifications to characters' costumes. This constant stream of additions and alterations formed a bottleneck, and Kounoe's tuning team was working in it. "I set up the tuning team for the original *Tekken*, and steadily expanded it by adding new staff members," he remembers. "It went from just one part-timer and myself to 30 employees at its height. I would spend each month aiming for the highest arcade scores in Japan; in my tuning team we had all taken up the job of high scorer. Those who 'graduated' from the team were later chosen for top producing and directing positions, and now they hold up the Namco brand. The members were all workaholics; we lived at the office. We used to line up chairs to sleep on because the floor was cold. We were constantly suffering from sleep deprivation because we had to test that every technique for every character functioned normally, so one by one we tried the moves in every direction to confirm they worked. If the tuning team didn't exist, there would have been no *Tekken*. It was built by the earnest hard work of the staff.

"There was a mountain of problems with the project, most of which were resolved by the wrath of the major staff members. There was a very fierce and passionate collision of game design philosophies. There was also a very low level of efficiency, and the amount of work that each person produced was huge. Consequently, there was an unprecedented variety of ideas, rather than it being the creation of one designer. We ended up with a very bizarre game. The result of this was that unregulated raw materials were being implemented one after another, so the work of the tuning team became extremely difficult – having to retain the characteristics of each of these elements while balancing performance. With a normal development schedule, you make a plan that separates the raw elements so the differing styles and abilities are easily distinguished, and the man-hours required of the tuning team are small. With *Tekken*, designers were becoming obsessed with their own ideas, and continued implementing them at random. Trying to differentiate these ideas after they'd been added was a process you could hardly call normal. I felt like I was solving a giant puzzle at the same time as making a game."

Kounoe and his colleagues were no strangers to all-nighters, but this was the first time inefficiency and competitiveness had been the cause. What caused this change? "There are many reasons for the change at Namco. As a fighter, *Tekken*'s game flow was simple, but there was a lot of data for all the techniques, so the management style was different off the bat. The original *Tekken* was also the very first 3D fighting game to be made at Namco. There was the increase in employees halfway into production, which meant the culture of other companies got mixed in. I think our development speed seemed very slow to the new team members, and our trains of thought were more restrained. We weren't very assertive either, so the new guys couldn't tell what we were thinking. Of the newcomers, some were brought in specifically to work on *Tekken*, some for other reasons. Namco's culture was unique, and I could see these newcomers struggling. Some of them liked to row with everybody, but those people didn't stay at the company long. The *Tekken* project was like a storm; for varying reasons, many talented developers quit the company."

Understandably, there was a growing pile of discarded ideas – victims of the inter-developer battles and the ensuing delays. "In the original, the development

TICK, TOCK, TEKKEN TIME BOMB

THE ADDITION OF eight new characters brought *Tekken 2*'s crew of brawlers up to a meaty 25. Such a bustling roster could have been overwhelming to *Tekken* newbies, so Kounoe devised a clever bit of technical trickery to resolve the issue and keep punters coming back for more: "I drew up and implemented a plan to prolong the game's life. In the *Tekken* series we have enemy characters called sub-bosses who match up with the character you have selected, but it would look too complicated if you could choose from so many fighters right from the off, so I employed a system that would release them steadily – that way, players could learn the game gradually. The problem was that if the characters made calendar-based debuts it would have infringed on another company's patent! That's why I had to design our own proprietary system, which measured how many hours the cab had been on for."

This also ensured continued interest in Namco's machine at a time when new fighting games were popping up all over the place. To complement the time-release system, a number of characters could also be unlocked by entering codes that the players were left to figure out for themselves.

» Kuma (Japanese for bear) was one of the more popular secret characters.

ran over schedule, so we couldn't include sideways rolls when characters got up from the ground," Kounoe recalls. "For *Tekken 2*, Yoshimitsu's designer came up with a penguin fighter. At that time we were trying to think of animals that walked on two feet that we could base on the pre-existing human animation patterns. At any rate, the designer quit the company before he could complete the character model and I don't think many people in the team even knew about the penguin idea. These kinds of problems carried over into *Tekken 3* – I wanted to incorporate more strategic play into air combos by introducing safe-falling techniques, but I couldn't complete it. That wasn't all.

> **"Kuma was going to wield a frozen fish. You would have been able to control the salmon"**
>
> Yutaka Kounoe

Stances, damage animations, pinning techniques – all these elements got canned because people vetoed them based on their personal preferences.

"Now that I think of it, I remember there were also plans for a playable salmon in *Tekken 3*, but it was rejected. Kuma was going to wield a frozen fish, like Yoshimitsu's sword. After a timed release, you would have been able to control the salmon on its own, just flopping about on the ground. The plan was for a weak character with a jump and tail-spin attack. I don't remember exactly why it was cancelled. Probably some know-nothing dev obstructed its progress. What a pity. If we'd added the salmon, it would have made people burst out laughing and it would have become a talking point among high-level players because it would be so difficult to win with."

The freedom to act alone was something of a double-edged sword, also working in the game's favour on occasion: "Almost everything that was added was also decided by individuals working alone. Nina's throw combo was added by someone working on motion. I handled the motion for Devil, and a programmer later added his wings and laser beam. The ten-hit combo was overpowered and could lead to players shaving their opponent's health down to nothing in an instant, so my tuning team stepped in and made some minute adjustments and saved it from being scrapped."

"Tekken was designed with the aim of creating a game that was different to *Virtua Fighter*. We focused on unrealistic characters like Devil Kazuya and Kuma. So long as it was flashy and seemed possible, we would try anything. The whole team put in their best efforts to make a fun game, even with the low-performance hardware we had. The problem was that *Tekken 1* and *2* had large portions created by staff from outside Namco, so we couldn't control the project. This is why it turned into such a weird and flashy game. I think its strangeness makes it fun, though. In other words, the first two games were created as an experiment; even the developers couldn't predict how it would turn out. That's the appeal of *Tekken*. The third game, which I was in charge of, was a more calculated production. It was systematically planned and controlled, which meant it was more subdued, but I think it turned out well."

» I fought the Law and the Law won…

So does Kounoe like the recent effort between Capcom and Namco? "I have no interest in the *Street Fighter*/*Tekken* crossover. I haven't played it. The *Tekken* that emerged after I left has fallen below my expectations. It's a lot easier to create 'arrangements' of old games than to make something new. To still be relying on *Tekken* even now is proof that Namco's real strength has disappeared, and I'm shocked by the decline in creativity and development ability. It's shameful to call yourself a developer or a creator if you can't design new games. Relying only on collaborations that will sell well shows a lack of imagination, and it's not going to set the world on fire."Kounoe might not care for later Tekken games, but he still clearly loves the originals. *

» Nina and Michelle do battle.

STAR WARS DARK FORCES AND THE JEDI KNIGHT SERIES

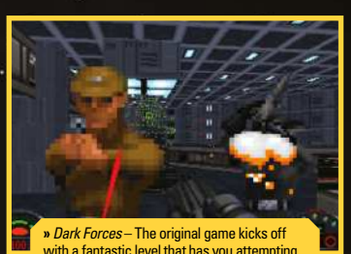
Ian Dransfield talks to those who made the brilliant Dark Forces/Jedi Knight series to find out why was the Force so strong in this one?

If ever a series shouldn't have been cast aside, it was that comprising of the *Dark Forces* and *Jedi Knight* games. Not one of its five entries: *Dark Forces* (1995), *Dark Forces II: Jedi Knight* (1997), *Dark Forces II: Jedi Knight – Mysteries Of The Sith* (1998), *Jedi Knight II: Jedi Outcast* (2002) and *Jedi Knight: Jedi Academy* (2003) – were in any way bad, each of them receiving critical acclaim on release and all of them still being held up as great examples of how to do good by a licensed franchise.

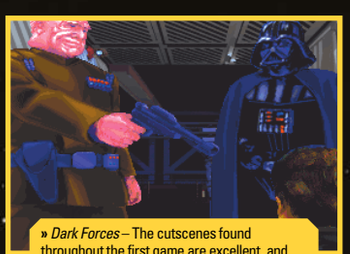
But why? At the core, these were all fairly straightforward shooters – the original *Star Wars: Dark Forces* was essentially a *Doom* clone. It was a straight-up shooter with a pistol, a rapid-fire weapon, explosives, and all that. It also had puzzle-solving elements. But two things helped the game rise above: smart design, and *Star Wars*.

Everyone wanted to play a *Star Wars* game in the style of *Doom* – even those who made *Doom*, as Matthew Tateishi, a level designer on both *Dark Forces* and *Jedi Knight*, remembered: "I remember the team getting an email from John Romero after he had played through *Dark Forces* – he said something like 'now I know how people felt when they played *Doom* for the first time.'"

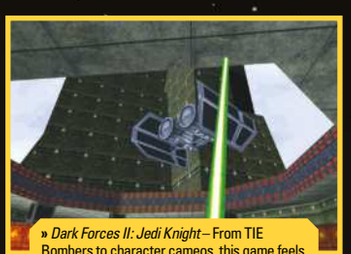
That *Star Wars* element meant more benefits than some might have hoped for – an established universe with reams of backstory and decades of development is a rich vein to mine, creatively speaking. Jarrod Showers had finished work on *Soldier Of Fortune 2* – now tasked with the role of lead animator on *Jedi Knight: Jedi Academy*, he found that the real world was somewhat lacking compared to that of a galaxy far, far away: "While modelling the Rancor, I remember thinking ▶



» *Dark Forces* – The original game kicks off with a fantastic level that has you attempting to retrieve the Deathstar plans.



» *Dark Forces* – The cutscenes found throughout the first game are excellent, and really add to the immersion.



» *Dark Forces II: Jedi Knight* – From TIE Bombers to character cameos, this game feels like an authentic *Star Wars* adventure.

THE MOMENTS THAT MATTER

The memories that will stay with us forever. Which ones do you remember?

TAKING OUT A STORMTROOPER

■ The first time you blast a Stormtrooper in *Dark Forces* is blissful; almost something that makes you feel like you belong with the likes of Skywalker and Solo.

GETTING A LIGHTSABER FOR FIRST TIME

■ It doesn't come until the second instalment, but this touching moment is probably the most memorable moment from any of the *Dark Forces*/*Jedi Knight* saga.

» Jedi Knight: Jedi Academy – Creating your own Jedi was a great addition to Jedi Academy, and included choosing your own lightsaber.

there was more reference stuff to work off of in *Star Wars* than there was for the real world guns in *Soldier Of Fortune*!"

It was a great playground to work within, Jarrod went on to say, though he did point out some elements of the universe were off-limits, like using Han Solo in any way, shape or form. "But then there were times we could bring in iconic characters like Luke Skywalker and Boba Fett," he added, "That made it feel like we were actually contributing to the universe we all loved."

The love of the universe was something that would be expected of many who worked on the *Dark Forces*/*Jedi Knight* games. Kevin Schmitt, now senior designer at 343 Industries, worked on *Jedi Knight: Mysteries Of The Sith* and *Jedi Knight II: Jedi Outcast*. He was also a devout superfan of the *Star Wars* franchise. "The three original level designers on *Mysteries Of The Sith* got a little worried when I pulled up with my personalized plates (MTFBEWY: May The Force BE With You)... But I finally had a venue for all the *Star Wars* knowledge I had stored up for so many years."

While Disney might have nuked all of the expanded universe mythology, it doesn't change the fact that – back in the day – these were people, often *Star War* fans, who were working on, adding to and enriching the universe they cared deeply about.

"We would often spread that resource material all over the floor and look for ideas and ways to tie things into the existing *Star Wars* universe," Kevin continued, "Since I had such a passion for it, I thought I owed it to the franchise to stay as true to the source material as possible. I was in heaven."

Playing with an entire universe of someone else's creation, you might expect the man himself – George Lucas – to have some involvement in the *Dark Forces*/*Jedi Knight* games. Not so, said Kevin – in fact, George Lucas wasn't really involved with production at all back then. "There's a funny anecdote Daron Stinnett, project director of *Dark Forces*, told me," Kevin recalled, "The local news wanted to get a story on George and *Dark Forces*. He sat down and played it while they filmed it. When the interview was over, he leaned over to Daron and said 'This is really violent!' From then on I don't think he was too interested in [*Star Wars*] games until around The *Force Unleashed*."

While the man who put his name to the studio wasn't directly involved in the various productions, it didn't mean it was all smooth sailing.

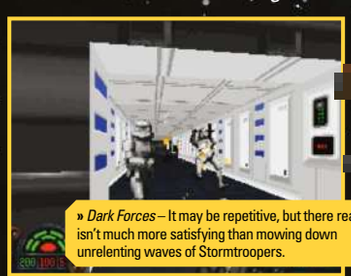
> "I finally had a venue for all the Star Wars knowledge I had stored up for so many years"
> Kevin Schmitt

Each of the five *Dark Forces*/*Jedi Knight* titles carried a fair bit of baggage with it, thanks in no small part to licensing. While the games were based on *Star Wars* and being made by – or in close conjunction with – Lucas's own company, there were still restrictions, hoops to be jumped through and arguments to be had.

Kevin pointed out two of the less impactful restrictions placed on development: "We did have a longstanding 'no mistreatment of Ewok' policy in place (which we broke in *Outlaws*) and there was later a 'no mistreatment of Jar-Jar' policy." Yet sometimes the policies weren't as clear cut as the creators of the games initially thought.

"I think we talked about Lando Calrissian as a joke at first," Kevin continued, "Like we would only do it if we could get Billy Dee Williams. Well, somebody talked to somebody and the next thing we knew he was

» *Dark Forces* – Dropped into the pit of Jabba's palace, Kyle Katarn has to fight this beast with his fists. Unless you enter a cheat code... ahem.



» *Dark Forces* – It may be repetitive, but there really isn't much more satisfying than mowing down unrelenting waves of Stormtroopers.

VISITING KYLE KATARN'S HOUSE

■ One ofen overlooked element that helped establish Kyle Katarn as a man of pathos was the fact you actually visit his father's house – something most of us can relate to.

BEING THERE WHEN THE REBEL BASE GETS ATTACKED

■ You should know the drill by now: the Empire is attacking the rebels, you have to repel them. Simple, action-packed and memorable.

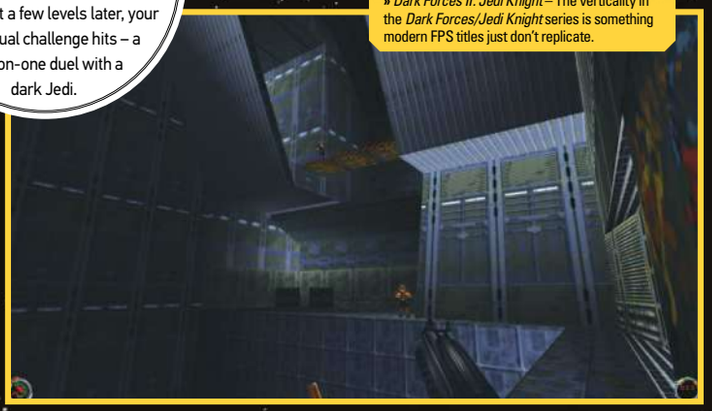
FINDING AN EXTRA LIFE

■ No, really – even though *Dark Forces* was heavily influenced by *Doom*, the game still held on to the archaic system of 'too many deaths and it's game over'. Thus, extra lives came in handy.

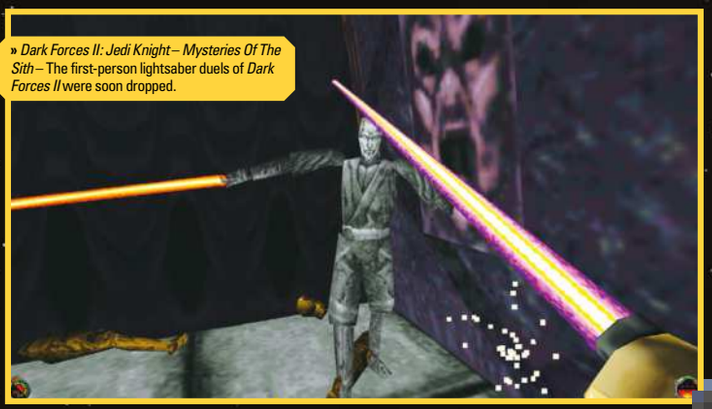
» *Dark Forces II: Jedi Knight – Mysteries Of The Sith* – In this add-on you get to take control of Mara Jade, a somewhat conflicted character.

YOUR FIRST PROPER SABER DUEL

■ You get the lightsaber and end up swinging it around willy nilly for a while, but a few levels later, your first actual challenge hits – a one-on-one duel with a dark Jedi.



» *Dark Forces II: Jedi Knight* – The verticality in the *Dark Forces/Jedi Knight* series is something modern FPS titles just don't replicate.



» *Dark Forces II: Jedi Knight – Mysteries Of The Sith* – The first-person lightsaber duels of *Dark Forces II* were soon dropped.

on board so we went ahead and made him a key plot point."

But it wasn't always as easy as getting Lando on board, with restrictions and rules in place and a constant back and forth between the development team and licensing. Stephen Shaw, project leader and designer on *Mysteries Of The Sith* explained one particular hurdle that has stuck with him: "The largest restriction that was put on us was that we weren't able to create any new Sith lords for our protagonist to battle. This made it a challenge to figure out how to have lightsaber battles as a game element."

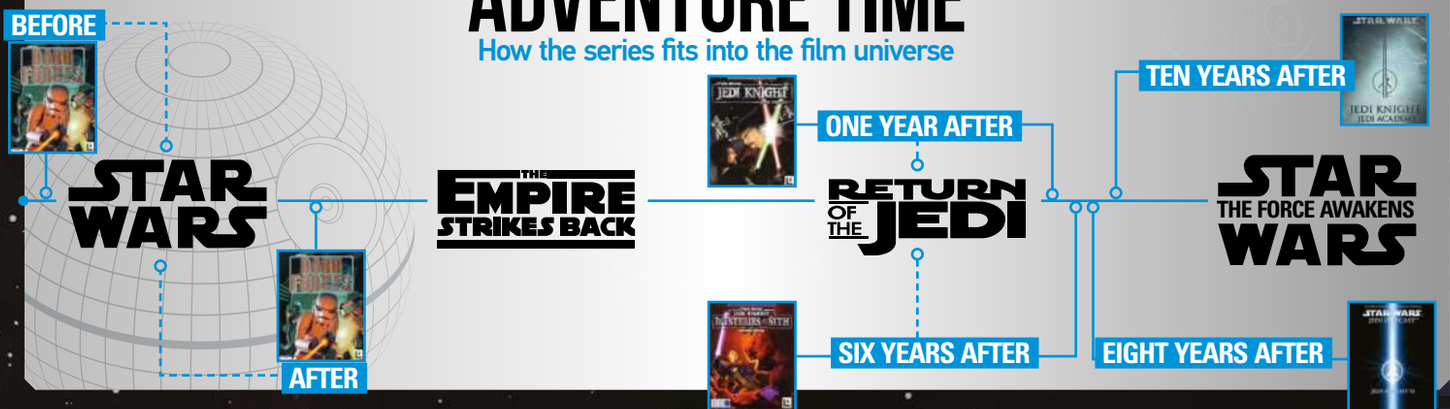
But, as Kevin pointed out, the team found a way around this particular roadblock: "We had originally proposed some sort of Sith Apprentice, a non-Jedi wielding a lightsaber. Licensing came back and said 'No, only Jedi can wield sabers'," he said, "We went back to the drawing board and spent a few days trying to work around this limitation. Nothing was coming up. Then we got this crazy idea… It seemed as though Licensing rejected at least one thing from each of our submissions, almost as if they had to veto at least one thing from our designs to validate their existence.

"We figured if we put something in our design proposal so out-of-this-world crazy, and then slipped in the real idea we wanted, they would veto the crazy thing and let our real idea through. I can't remember what it was that we slipped in for them to veto, but if they let Sith undead in, it must have been crazy. This became our MO from there on out when dealing with Licensing."

This was an iron grip holding on to the *Star Wars* licence – and with good cause. As one developer, who asked to remain anonymous, told us, the control was exercised because these were games

ADVENTURE TIME

How the series fits into the film universe



KYLE RETURNING IN JEDI ACADEMY

■ *Jedi Academy* is the first game where you don't play as Kyle Katarn. So when the bearded one shows up to give the player a helping hand, smiles the world around will have been broad.

SNIPING A RODIAN FOR THE FIRST TIME

■ Rodians in *Jedi Academy* are frustration incarnate, sniping you repeatedly from a distance – so when you turn the tables... Oh, it feels *so good*.

GETTING THE FORCE BACK

■ *Jedi Outcast* begins with Kyle Katarn having sworn off the Force. But soon enough he has to go back to his hokey old religion – and we let out a sigh of relief.

TAKING OUT YOUR FIRST ENEMY JEDI

■ In *Jedi Academy* you find yourself fighting many Jedi. Though they're not actual, properly trained knights it's still a tense situation every time you see one.

> **"The original Raven Jedi Knight prototype used the Star Trek Voyager: Elite Force codebase"**
> Anonymous

▶ recognised for a certain earning potential: "The development of the game was supposed to be 100% top-secret," they said, "It was internally announced in a Raven company meeting when a mysterious towel-shrouded head was produced… underneath which was a bust of Darth Vader. The game also got an alias, *CHC*, to be used in any emails in case security was breached. *CHC* stood for '*C*old *H*ard *C*ash'."

This ethos extended beyond just the *Dark Forces* and *Jedi Knight* series too, with Yves Borckmans, programmer on *Dark Forces II: Jedi Knight* and *Mysteries Of The Sith*, explaining it was part of the reason he eventually left the studio. "When *Episode I* was filming and we started working on games based on it the paranoia on leaks became extreme," he explained, "It became pretty uncomfortable to work there. All offices had their windows covered with opaque papers, you had to call security to go talk to some colleagues. This is about when I left, and I was happy to, it was a bad atmosphere in the name of secrecy."

But all the back-and-forth discussions, micromanagement and confusing licensing decisions in the world could not stop the core teams on each game from doing what they could do best: make some damn fine games. There is something about the *Jedi Knight* games (less so *Dark Forces*, owing to the technical limitations) that makes them feel fresh even today: clever design. Design that uses 3D space to its full advantage and design that does not just corral a player down a straightforward corridor.

You can get lost in *Jedi Knight*, you can become confused by a puzzle in *Mysteries Of The Sith*, you can get shot from someone 50 metres almost directly above you in *Jedi Outcast*, and you can have wonderful, flowing, freeform lightsaber battles in *Jedi Academy*. All of them have elements of design players would kill to see in modern shooters, but for some reason they're largely left on the junk pile.

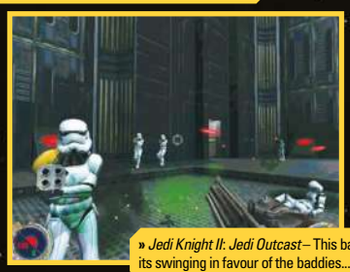
Then, of course, the design comes back to the *Star Wars* factor: "Some great examples of this are on level one of *Mysteries Of The Sith*," Stephen explains, "I remember describing to Kevin Schmitt wanting to see Hoth-like scenes where the wall explodes and Stormtroopers flood in and get in a fire fight with rebels and you have to run through it to accomplish your objectives.

"It was also somewhat of a funny challenge for Richard Fife who worked on the AI. Most of the AI logic and data structures had been written for *Jedi Knight* to focus on and interact with the player and it was really difficult to alter the AI's (Stormtroopers) to focus on NPC's (Rebels). Every now and then you could still see brief moments where the Stormtrooper logic tries to focus on the player before Richard's logic would smack them back into shape and they'd turn back to the NPC's."

This culture of building on what already existed didn't stop at *MOTS*, either, as our anonymous developer pointed out: "The original Raven *Jedi Knight* prototype was made in a short month, using the *Star Trek Voyager: Elite Force* codebase as a starting point. Early on, someone painted a Klingon texture white as a sub for Stormtroopers."

Even working on a project as huge as one for *Star Wars*, there were budget – and time – constraints to take heed of. But as Stephen explained, this need for thriftiness just led to creative solutions: "While we had a limited budget and production schedule, the team rallied to see how many characters we could put into the game," he said, "Clint Young and Chris Hockabout were fiends at modifying models and ▶

» *Dark Forces* – Ever wondered what it's like to shoot Imperial probe droids? Wonder no more!



» *Jedi Knight II: Jedi Outcast* – This battle might look like its swinging in favour of the baddies... it's not.

» *Jedi Knight: Jedi Academy* – Even though the latter two games are primarily played in the third person, it is still possible to go back to good old FPS style.

FEELING THE FORCE

Project leader Daron Stinnett shares his own memories of Star Wars: Dark Forces

What did you do specifically on your entry to the *Dark Forces* saga?
I was working for a flight simulation publisher called Spectrum HoloByte when a friend of mine invited me to join him at LucasArts. So I met with LucasArts' management team and they basically said I could come to work for them and build any game I wanted. How could I say no to that? I was a big fan of id's *Wolfenstein 3D* - one of the earliest first-person shooters. So I put two and two together and proposed that I build a *Star Wars* 3D shooter. My role at LucasArts was Project Leader - which was basically team leader and lead designer. I also had a coding background so the first thing I did was to start coding and hiring up the team. We knew that lightsabers were out of the question given the technology available in 1993, so we focused on blaster combat and figuring out how to render *Star Wars* environments in 3D.

» The Force is strong with LucasArts Project Leader Darron Stinnet

What was the design ethos behind the games? The thinking going into it?
We were focused on creating a game that allowed players to explore *Star Wars* environments in 3D for the first time. We felt like *Dark Forces* was an incredible opportunity to build what we all imagined lay beyond the sets created for the movie and bring those environments, characters, and stories to life and make the player feel like they were part of discovering it. So we knew that we needed strong characters and story. And we were also very focused on creating environments that felt as real as was possible given the tools and technology that was available at the time.

Did this change at all during development?
It didn't. We started with a vision of creating a game that was a fun and compelling exploration of *Star Wars* locations and giving the player the chance to become part of the *Star Wars* story and we stuck to it. I remember when the game was nearing completion and the President of LucasArts asked me if I wanted any more time to add anything more to *Dark Forces* and I said "no". I felt like we had realized our vision for the game and I did not feel like adding anything more would make it any better.

How did it feel to be involved with a *Star Wars* title? Was it a series that you had much love for beforehand?
It was awesome! It felt like I was transported to this amazing fantasy working environment. Where outside my window ILM might be crashing and blowing up jumbo jets (this was before they did that kind of thing with CG). And our offices where literally stacked with famous props from the movies that today are in museums. We frequently had lunch at the Ranch right next to George, and we felt like we were solving problems that no one had solved before. It was a fantastic experience and one of the highlights of my career.

What was the brand like to work on? How much input did the higher-ups at Lucas have on it?
George really wanted LucasArts to create their own narratives so he was a big supporter of us creating characters, locations, and storylines that expanded the *Star Wars* universe.

Was there anything that was 'forced' to be added or removed by the Lucas brass?
Not at all. Later when the prequels were made, LucasFilm became much more actively involved in the content of all *Star Wars* games but back then, we were given a lot of freedom.

What do you think of the series today and how it's remembered?
I'm extremely proud of what we accomplished. We built stunning new technology, created realistic yet fantastic environments, pioneered adding story, characters, and puzzle solving to the FPS genre. I'm also proud that along with *X-Wing* and *TIE Fighter*, we proved that *Star Wars* and licenced games in general could be just as compelling, if not more compelling as games created without the benefit of IP.

Do you think the JK/DF series gets enough respect for the influence it had on shooters?
I think *Dark Forces* gets the respect it deserves. Look, if we had added multiplayer *Dark Forces* would have been a mega hit that likely have dethroned *Doom* as the the game that defines the genre. At the same time, I know that had we attempted to do multiplayer, we would not have been successful at delivering the compelling single player experience that we did. So we made that choice, *Dark Forces* was still a great success, and I wouldn't change a thing if I could do it over again.

Finally, if Disney was to decide to bring back *Dark Forces*, would you consider sending in your résumé?
I have my own company now and we are really excited to be creating the world's first RTS online battle arena style game called *Victory Command* (www.victory-command.com). So I am very focused on making *Victory* into my next big hit at the moment. That said, I would be thrilled to work with the *Star Wars* licence again. I think *Star Wars* is at its best when it is delivering on the core fantasy and exploring technologies and gameplay that is cutting edge and I'd jump at the opportunity to do it again.

» *Dark Forces*: He may have an axe but he's no match for a blaster in the face. We bet he's wishing he never transferred from Jabba's palace.

CATCHING UP WITH KYLE KATARN(AKA JASON COURT)

Dark Forces sequel featured real actors. Here's the main who portrayed the main hero

How was your experience playing Kyle Katarn in *Dark Forces II*?
I have to tell you, the experience was truly a challenge from an acting perspective. I suppose one of the hardest things to realise while watching the cutscenes is that, from the acting side, I was literally pretending to interact with things that didn't even exist. All the CG stuff was being created as we shot the scenes, so, Kyle was literally talking and interacting to light stands, green screen walls, a stack of green boxes... any object that could represent the character he was interacting with. Even the lightsaber was just the prop saber handle with a green painted broom stick sticking out of it, and waving that thing around was not so easy to whip around and make to look as weightless as weightless light...

Were you much of a gamer?
Prior to *JKDFII*, the only real games I had played start to finish were things like *Myst*, *Riven*, *Joe's Apartment*... things like that, that were much more simple, wiping screens, and much less immersive and involved.

We're going to assume you do still get recognised by those who were obsessed with *DFII*...
This is for sure one of those really cool things about having participated in this project. It is so flattering and cool to get the kind of letters and requests that I do. I hear some really cool stuff from folks who played the game and enjoyed it to the point of it actually being a highlight from their childhood. Nothing can be wrong with being told "you were a great influence when I was a kid". As an actor, there is no better. I still seem to get things sent to me fairly regularly to sign and send back, and usually they come with incredibly kind notes and letters. That's just cool, period!

What's it like now, to know you're one of the few people to have ever played the role of a named Jedi on-screen in such a well-loved franchise?
Come on! Just to be able to say you have a Wookieepedia page is something that kind of separates you from the acting masses. Totally humbling and awesome, and really cool to know that I was a part of something that was so new, creative and awesome!

Is it still something you bring up at all, say at a dinner party or in other company? Or is it something you leave in the past?
It's pretty simple: there really aren't any segues in conversation that lead to me talking about it much.

The only time it comes up is if someone else brings it up for some silly reason, but otherwise, it's just a part of my cool past.

If Disney wanted Kyle Katarn in the new canon, would you send in your resume?
Of course! Actually, I would like to hope they would ask if I wanted to audition. I'm guessing they probably wouldn't, but since I was the guy who originally portrayed him, it would be nice to think they might make that effort to offer me the opportunity to audition. I'd be all in for sure. The older, wiser Kyle is a different person now...

How is life these days? And do you use your Force powers at all?
I have slowed my role a lot over the last few years. I have switched gears and took on the quest of learning how to make wine. I have been up in Northern California making wine and running my business for Evidence Wines for the better part of 12 years now. Cooking, eating and living have been the quest for me these days, and *yes*, the Force is always with me and it is there ready if I ever need to draw from it...

▶ painting them with new textures and suddenly we would have a Hammerhead, a Trandoshan, or a Weequay that we could have to spice up environment. I also was able to grab one of the models created for the *X-Wing* series and convert them into a format that Clint could then clean up and import into the game, giving us even more to add to the environment.

"This gave us the ability to not only have them in Katrassi, but also to have the space battles between capital ships going on outside the windows on the Talon Karrde / Holocron / Pirate Raiders levels, once again attempting to give the player the feeling that they were in the middle of one of the space battles from the movies."

One area where creative design could run wild, though, was in the use of Force powers. Introduced in *Dark Forces II*, players were suddenly able to run, jump, pull, push, grip, and electrocute with the best (and worst) of them. Far from just being a mere superpower button, though, these Force powers meant that the games could be designed in a different manner to other, traditional first-person shooters.

"Force powers opened up a whole new avenue," Kevin said, "We could place things in hard to reach places, add new dynamics to a boss battle and more. It added great campaign replay value; choosing a path and picking your powers, not to mention adding some new and sneaky dynamics to multiplayer."

» *Jedi Knight: Jedi Academy* – Deflecting bullets is only going to get you so far. It's time to use the force.

» *Dark Forces II: Jedi Knight*– There have been a number of mods in the works for a while now, but nothing has been finished in the nearly 20 years since *DFII* released.

The multiplayer, of course, was – and still is – a huge battleground for fans of the series. Those lightsaber duels in *Jedi Outcast* and *Jedi Academy* have yet to be bettered, and at least one of the finest examples of games writing out there has been based directly on one of these very duels. The admiration for them is shared by the people who actually had a hand in making them, too. "I remember vividly some very intense one on one lightsaber matches, staring my opponent down, talking some serious trash talk, and then charging them with my fingers on the Force Choke button," Kevin tells us.

"We had some epic battles in production. *Jedi Knight II: Jedi Outcast*'s multiplayer even took that to new heights. That is still some of the most intense multiplayer combat I have ever experienced. There is just something more personal about fighting up close with a lightsaber."

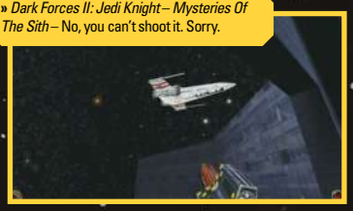
Speaking of the personal element, players of the *Dark Forces*/*Jedi Knight* series have something of a personal connection thanks to the one man who appears in all of the games – Kyle Katarn. Created for the original *Dark Forces*, Katarn went on to appear in comics, novels, even action figure form – and he's a popular character in the *Star Wars* universe. Not bad for a first-person vessel for the player.

"I think Kyle Katarn was mostly designed to mirror the 'become a Jedi' hero journey of Luke but without using any of the canon characters in a game," Yves explained, "I think the overarching goal of all the games was to immerse the player in the *Star Wars* universe as the hero of the story."

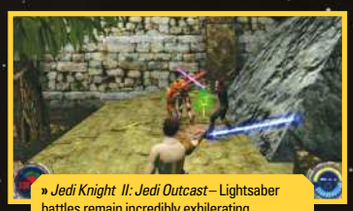
But with that heroism comes temptation – both of the light side, and of allowing the player to dabble in the dark side. *Dark Forces II* allowed the player to choose their path, light or dark, with a set of powers accompanying their choices (you don't see Obi Wan Kenobi doing a Force Choke, for example). But that choice meant continuity was an issue in the following games, and this element of choice was dropped for a Katarn who was... somewhat torn.

"We wanted to avoid the same issue we had with *Jedi Knight* when the player chose their path," Kevin explained, "Since we had Kyle go to the dark side in *Mysteries Of The Sith*, we decided he would therefore have all powers available to him. I think the players liked this as well, they could choose their favourite abilities without actually locking into a side."

With all the juggling of elements – a game design that had to appeal and be familiar to players, an established universe that was to be handled with due care, attention and with all the problems that come with moneymaking licences, a character who had to be everything to everyone while at the same time fitting in with all manner of rules ▶



» *Dark Forces II: Jedi Knight – Mysteries Of The Sith* – No, you can't shoot it. Sorry.



» *Jedi Knight II: Jedi Outcast* – Lightsaber battles remain incredibly exhilerating.

AIN'T NO MATCH FOR A GOOD BLASTER

The best weapons you can use. "Fire when ready"

DL-44 HEAVY BLASTER PISTOL

■ It is not often you will choose to use the gun in slot one of your weapons, but when it happens to be *Han freakin' Solo's gun*, you tend to use it a lot.

IMPERIAL REPEATER RIFLE

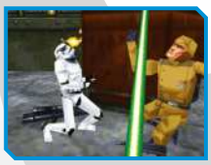
■ "How can we put a machine gun in *Star Wars*?" "What if we just do it, but call it a repeater and have it fire energy balls of bullets?" "POMOTE THAT MAN!"

E-11 BLASTER RIFLE

■ The best thing about using the Stormtrooper rifle against Stormtroopers is the incredible sense of irony, especially when you're actually accurate with it.

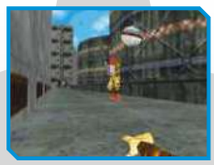
"I think the overarching goal of all the games was to immerse the player in the Star Wars universe as the hero"

Yves Borckmans



LIGHTSABER

■ Sometimes it's a bit clunky, sometimes you feel like you're not in complete control of it, sometimes the buzzing gets annoyng... but all in all this is one of the best weapons in any game, ever.



THERMAL DETONATOR

■ The enemies who use these against you are annoying, so when you get to lob your own grenades back at them it is as satisfying as sniping a Rodian.

WOOKIEE BOWCASTER

■ It did not fire like this in the films, but what the hey, maybe it originally was *meant* to charge up to fire a spread of five green star-shaped laser bolts...

DEMP 2 GUN

■Granted, it's not the most useful gun in the game, but it is the best for when you want to make people go all electrified like this and you haven't unlocked Force Lightening ability yet.

FORCE LIGHTENING

■ Technically it's not a gun, but when you're talking offensive capabilities in the *Jedi Knight* games, nothing is better than zapping Imperials with pure energy.

» Sadly, the Stormtroopers in the *Jedi Knight* games are a lot better at shooting than they are in the original trilogy. Sorry about that Kyle…

▶ set up by a man who wasn't even working on the game – even with all of this working against them, the *Dark Forces* and *Jedi Knight* games worked. They worked well. And they're remembered fondly.

"It comes up every once in a while and I'm definitely proud to have worked on it," Matthew tells us. "I think there are definitely some iconic moments in those first two games I worked on – the one that probably comes up most often is the falling ship level designed by Jacob Stephens. It was a good example of the right people coming together at the right time on the right project."

Kevin feels similarly, though he admitted he doesn't hear the games referenced directly so much as it is a *feeling* from those he encounters. "I think we had a greater impact *inside* the industry," he said, "Many – and I mean many – fellow developers I talk to reference playing the series. Much like the *Star Wars* films got people into making movies, the *Dark Forces*/*Jedi Knight* series got them into making games.

"One of the most common comments I hear among artists is the amazing look at feel of Nar Shaddaa in the series. It was one of the first environments that made people feel vertigo in a game; it was so expansive and complex."

Even those with memories of a nine-month 'brutal' crunch period on *Dark Forces II*, like Yves, still have a sincere soft spot for the franchise. "Everyone kept insane hours," he explained. "My typical day would be 9-10am til 6-7pm, work over provided lunch, go home, eat something, see my wife for an hour, go back to work around 9pm and work until 3am. Our technical director literally bought Coke by the palette and dumped it in the office along with a mountain of snacks. To give you an idea, if I remember well there were over 20,000 bugs reported in the bugs database for *Jedi Knight* and we fixed almost all of them."

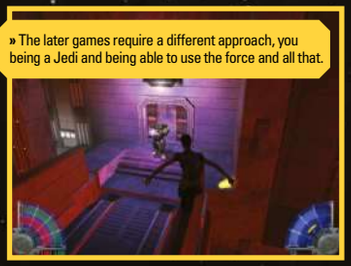
Yet even after that seeming horror story, Yves still wasn't down about his time on the series: "Anyone in the entertainment/gaming industry around my age knows it and remembers it. Every time I meet someone new and we exchange stories, *Jedi Knight* is *the* game they all always remember and it's always good memories."

> **"I was actually at LucasArts when they were shut down by Disney working on 1313 as lead designer"**
> Matthew Tateishi

LucasArts was still working on *Star Wars* properties late in the day, forging ahead with experiences even when the studio seemed to be coming apart at the seams. "I was actually at LucasArts when they were shut down by Disney working on 1313 as the lead level designer," Matthew said, "I think this would have definitely been one of the best *Star Wars* games in a long time." But it wasn't to be – that era is over.

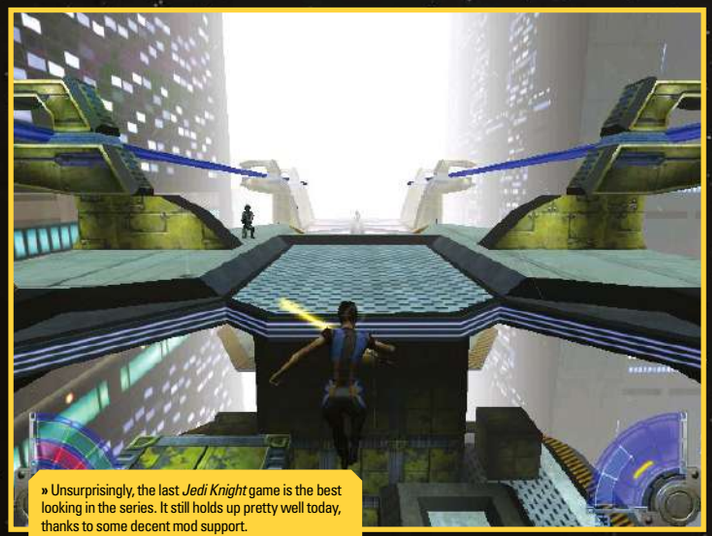
There will be more *Star Wars* games, of course, as Yves – currently a Disney employee – pointed out: "I can't of course say anything specific, but Disney has *big* plans for *Star Wars*," but those wanting to see a return from Kyle Katarn and co will likely be left wanting: "Though I doubt any would go back to the *Dark Forces* era or characters."

So maybe it's a good thing, then, that the *Dark Forces*/*Jedi Knight* series went away. It floated off on a high, never to be brought crashing back down to earth like so many other franchises that were milked within an inch of their life – and we can name quite a few of those. We are unlikely to see a new adventure, but when the older ones still hold up compared to some modern games – even upstaging them in some respects – it's less of a bitter pill to swallow. ✱



» The later games require a different approach, you being a Jedi and being able to use the force and all that.

» According to old Ben, "Sand People scare easily" Turns out they also die easily…



» Unsurprisingly, the last *Jedi Knight* game is the best looking in the series. It still holds up pretty well today, thanks to some decent mod support.

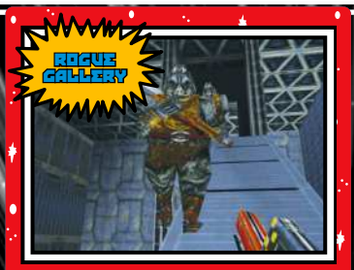
ROGUE GALLERY

The heroes and villains of the Star Wars: Jedi Knight universe

ALLIANCE NEUTRAL EMPIRE

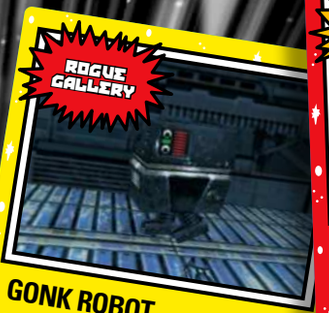
(NOT QUITE) C3PO

■ You see this protocol droid popping up all over the place in a few of the *Jedi Knight* games, and every time you're expecting him to break out into a cry of "we're doomed!" or to blame bad luck on a trashcan-alike compadre. Instead you get a voice that isn't delightfully camp... this isn't the droid you're looking for.



GAMORREAN GUARDS

■ The pig-faced ones make an appearance in all of the *Dark Forces*/*Jedi Knight* titles, and with good cause: they're easy to dislike, making them ideal enemies. Admittedly it is a bit off-putting to hear them squeal when you take them out, but remember these are the guys who bullied C3PO.



GONK ROBOT

■ So called because it waddles around going "gonk... gonk... gonk..." a lot, the gonk robot is seen various places throughout the series of games. What does it do? We're left in the dark on that one. Does it get in the way? Yes. Is it hostile? Nope. Can you shoot it anyway? Absolutely yes. And we would recommend that you do so!

AT-AT

■ No, you can't grapple up to its undercarriage, slice it open, lob in a thermal detonator and detach before watching the thing explode spectacularly. It would be fair to expect a grand battle scene against an AT-AT, but it never does come. You can, however, run around underneath it without fear of it treading on your head.

TRAINING DROID

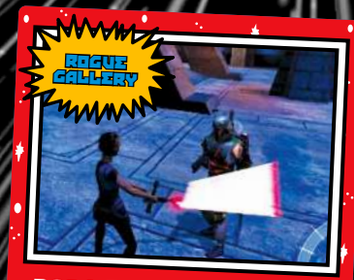
■ This nippy little blighter might have stung Luke Skywalker's backside once or twice in *A New Hope*, but it's no match for hot lasers in the face, as you find in *Dark Forces*. Being the very first enemy you encounter in the game, the training droid is memorable for literally no other reason. In fact, they barely show up after this.

LUKE SKYWALKER

■ Luke pops up, allowing us to see what he ended up doing after the events of the original trilogy of films (we're in a pre-*Episode VII* world here, folks). Basically he spent his years living in a temple, wearing the same clothes as in *Return Of The Jedi* and trying his very best to be more like Yoda with each passing day.

LANDO CALRISSIAN

■ Rescuing the most traitorous of all the space rogues from prison, players get the pleasure of Lando Calrissian's company for a while in Jedi Outcast. Voiced by the *actual* Lando, Billy Dee Williams, this was a fanboy's dream when the game first game out. And to be perfectly honest, it's still pretty cool these days.



BOBA FETT

■ Boba Fett turns up in *Jedi Academy*, providing the player with a combination of both one of the best characters appearing in the game while at the same time being one of the most annoying fights in any game ever made, ever. A man with quick-fire lasers, a jetpack and a flamethrower does not a fun enemy make.

RANCOR

■ Big, angry and – in the case of *Jedi Academy*'s Rancor – modified to be bigger and angrier. Just as you get to the point where you're comfortable leaping about, lobbing your saber and waltzing through any challenge put in front of you, the game ups the ante with an enemy that can easily pick you up and eat you.

DARK TROOPERS

■ Think Stormtroopers, but with the ability to actually shoot straight, and you're pretty much on the right path. Oh, also they're about nine feet tall and carry some formidable weaponry. Basically they are what would happen if Stormtrooper cadets actually listened when they went to Stormtrooper school.

Background illustration: Maciej Rebisz

THE MAKING OF RIDGE RACER

TWENTY SIX YEARS ON, RIDGE RACER IS STILL BURSTING OUT OF CORNERS AT DAFT SPEEDS – BUT HOW DID IT BEGIN? JONTI DAVIES CHATS WITH FUMIHIRO TANAKA, GAME DESIGNER ON THE ORIGINAL COIN-OP, AND YOZO SAKAGAMI, WHO WORKED ON THE PLAYSTATION VERSION OF THIS SEMINAL RACER

Several significant hardware and software shifts mark the early Nineties as a crucial and defining period in the history of videogames, and few games embody what those years were about more succinctly than Namco's *Ridge Racer* coin-op and its subsequent PlayStation conversion. The arcade version was one of Namco's pioneering polygonal excursions, a texture-mapped marvel of the time; not exactly a tech demo, but certainly an experiment. Meanwhile the PlayStation version, which debuted alongside Sony's first console in December 1994, admirably faced up to the challenges of presenting such memory-intensive content on CD-ROM.

As the eloquently spoken Fumihiro Tanaka recalls, *Ridge Racer* came about because of hardware advances rather than through any purely conceptual whim: "First of all, it's important to state that *Ridge Racer* was developed to make use of some newly completed polygon-capable PCB technology, albeit in the form of a proper game. I think it's fair to say *Ridge Racer*'s concept was an idea born from polygon PCB technology."

Tanaka makes this distinction, but also points out that what ended up as the instantly recognisable sports car fiction of *Ridge Racer* could have been quite different, had the *Ridge* team been swayed by the trends of 1992. "At that time in Japan, the thinking was, 'If you're going to make a car racing game, take F1 as a theme', so at first we considered making *Ridge Racer* with F1-style cars." (One look at Sega's *F1 Super Lap* or Namco's own *Final Lap R*, both of the same vintages as *Ridge Racer*, validates Tanaka's claim.) "But the result of that consideration," Tanaka continues, "was a number of different concepts which informed the final version of *Ridge Racer*: the game had to be 'on public roads', 'with machines like passenger vehicles', and it had to 'encourage players to use drift techniques'." Tanaka is confident his team made the right choice when forming that design brief. "If we had gone with a Formula 1 style of racing game, would *Ridge Racer* have been so loved by players?"

There is an argument for saying *Ridge Racer* constituted little more than a tech demo, but that notion falls apart as soon as the race begins – if anything, the "drift techniques" Tanaka mentions, which encompass the arts of powersliding and handbrake turns, outrun the impression left by *Ridge Racer*'s boundary-breaking graphics. The original *Ridge Racer* game is still a joy to play, as are most of its numerous sequels. *Ridge Racer* was, however, a little different from the other games on Tanaka's CV, with technology driving ▶

IN THE KNOW

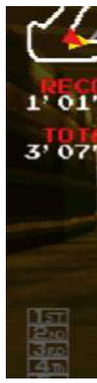
» **PUBLISHER:** NAMCO

» **DEVELOPER:** IN-HOUSE

» **RELEASED:** 1993

» **GENRE:** RACER

» *Ridge Racer*'s driver AI was nothing to marvel at, but the multiplayer game introduced in *Ridge Racer 2* soon provided a greater driving challenge through human competition.



"We were racing against one of our rivals who also had a 'polygonal racer' in development"

Fumihiro Tanaka

development – not the other way around. "*Ridge Racer* was developed using the very latest technology we had," Tanaka explains, "so while the project was being put together by game programmers, at the same time we were also pursuing polygon technology and searching for new display methods that hadn't previously been available to us."

This focus on technology wasn't inspired by the urge to create a fully realistic driving simulator, though. "As people who know the game will appreciate, *Ridge Racer* is not a realistic 'driving simulator'," Tanaka says in a nod to *Gran Turismo*. "Of course *Ridge Racer* had a high level of programming technology and graphics techniques, but more than that, I think it was a game with a strong sense of good taste. Players back in the day were able to race through the game and enjoy a fun feeling, because it was a first-class racing game. It wasn't advanced simulation programming that made that possible, though – I think it was down to the advanced sense of game design."

Still, while the *Ridge Racer* team was not obsessed with reality to the same extent that Polyphony Digital would be later in the decade, the emergent arcade technology behind *Ridge Racer* did force Tanaka's team into some inter-developer competition. "At that time," Tanaka reminisces, "we were racing against one of our rival companies who also had a 'polygonal racing game' in development, so we were doing our best to make sure that our game was finished first – even if by just one day – and was more entertaining."

Tanaka refuses to be drawn on which company and game Namco and *Ridge Racer* were in direct competition with, but Sega and *Daytona USA* (Sega's earliest example of texture-mapped polygonal racing) is a safe bet. Regardless, Tanaka understands the irony of the situation: "I think the other company was probably in the same position, racing against us." Tanaka again turns slightly coy when we ask him about the size of the original *Ridge Racer* team. "I can't answer this in detail, but the number of team members was much smaller than what most people would imagine." The spirit of inter-developer competition, at least, lives on…

***Ridge Racer's* arrival on the then-thriving arcade scene roughly coincided with the boom era of rave music and happy hardcore, and *Ridge Racer* was an inadvertent champion of these ecstatic beat-driven music forms.** However, Tanaka reveals that it wasn't meant to be like this: "Can you believe that initially we were planning to have no music in the game?" It's a rhetorical question, but no – no (no n-no no), we can't.

Surprisingly, the decision to mine the brightest layers of techno was taken quite lightly, with a perceived lack of time (exacerbated by paranoia of being beaten to the grid by Sega) responsible for *Ridge Racer*'s eventual sound. "*Ridge Racer*'s music was produced at the same time as the game itself," Tanaka explains. "We didn't have time in our schedule for a surplus of tracks to be composed, so that we could pick our favourites at the end of development – that just wasn't possible. We were lucky to happen upon danceable techno music for the BGM, which really helped with the process of creating this atmosphere where players could race through the game and enjoy a fun feeling."

Adding to this "fun feeling" were the *Ridge Racer* coin-op's elaborately constructed cabinets. (See 'Racing Machines' boxout.) In the *Ridge Racer* team's estimation the value of simulation was a distant second to pure fun, but Tanaka is proud of how well the arcade cabinets supported the System 22 ROMs they ran. "The theme of the game was to put you in control of a high-power sports car, enabling you to hold the steering wheel to drive through curves and bends while skidding from side to side. Therefore, it was necessary that the steering wheel conveyed the response of the tyres in a way that players could actually feel. We had H-type gears, a clutch pedal, a large seat, and so on, all prepared so that the feeling of driving a real sports car could be conveyed properly."

Tanaka and team didn't concern themselves with how Ridge

THE CAR IS THE STAR

One of the most interesting additions to the arcade code was the super-quick 'Devil' car, which paved the way for the outlandish designs of many later *Ridge Racer* vehicles. Sakagami explains how his team arrived at this design: "We were asking, 'How will real cars look in five years' time? Five years from now, what kind of cars will be running along the roads?' We considered the near future of sporty cars, and made some guesses about their design. With the Devil car, which was exclusive to the PlayStation version, we thought about what the strongest rival car should look like and settled on this black type of car that no one had ever driven before. At that time, the Devil car was so difficult to outrun that it was being called 'The Cockroach', but we didn't design it with a cockroach as inspiration…"

Racer might be received in different territories. This was a more innocent/naïve age, when a Japanese developer could simply set out to make a game that would be fun for players in general – not a 'product' that would attract 'consumers' in specific 'markets' so as to keep the moneymen happy. "In those days," Tanaka sighs, "we didn't really think in terms of 'intended for Japan' or 'geared towards the West'. We were developing Ridge Racer to make players experience a happy feeling, and that sense of happiness from playing games we felt was enjoyed by everyone in the global community of players."

The development of *Ridge Racer* wasn't entirely trouble-free, but Tanaka is happy with how *Ridge Racer* ended up, and he is rightly proud of the series spawned by that original 1993 coin-op. Our chat ends with Tanaka relating a brief anecdote that sums up the basic highs and lows of making a new coin-op in the early Nineties: "I still remember one incident on the morning of the first AOU Show at which we showed Ridge Racer to customers. We'd spent all night preparing the prototype ROM that would go inside the cabinet, but when we inserted it and just as we powered up the machine on that morning, the screen went white and the ROM just stopped dead. I think my heart also stopped beating at that point! Eventually we found that it wasn't a programming error to blame – it was a defective ROM, so we exchanged the ROM and managed to get by without any more problems after that, which was such a relief…"

With *Ridge Racer* quickly established as a mighty name in the world of high-tech racing arcades, it was inevitable that a home console conversion would be requested for one of the CD-ROM machines scheduled to debut in Japan in late 1994.

Yozo Sakagami introduces himself with a recollection of the how, when, who and what of *Ridge Racer*'s console debut:

"Our work on the PlayStation version of *Ridge Racer* began in April 1994. Looking back at the record we kept of events at that time, it's clear that a decision on the final team members was made on 30 March 1994. There were eventually three programmers on the team, five visual staff, and one audio technician. I worked with the team as visual director. Sony had set the launch of the PlayStation hardware for 3 December 1994, so we essentially only had six months development time if we were to meet that deadline and deliver *Ridge Racer* as a PlayStation launch game."

That deadline was met – development lasted only six months – but the Namco employees responsible for this port were faced with even more challenges than Fumihiro Tanaka had encountered during his team's pursuit of the quintessential Nineties racing coin-op. The PlayStation hardware was powerful for its time, and the storage capacity of the newfangled CD-ROM format was sufficient, but data access times, purely digital controller input (the PlayStation's Analogue Controller didn't appear until 1997) and a video RAM shortfall presented significant obstacles to the kind of success Sakagami and team were intent on achieving. Part of the 'problem', Sakagami says, was how high the bar had been set by Fumihiro Tanaka's team: "Constantly during our work on the PlayStation version, we were worrying about how faithfully we would be able to reproduce the arcade version."

The first struggle was simply to replicate the feel of the coin-op. This was a challenge because of the restrictions of the original PlayStation controller's D-pad. "I remember at first we were thinking about how entertaining we could make the PlayStation edition with input only from a controller," Sakagami recalls, "and without the steering wheel and accelerator pedal of the coin-op. As programmers and artists, we were concerned with how we could convey the flavour of the arcade version's drift control, and we ended up making repeated mistakes. But it was actually out of this struggle that the neGcon was created…"

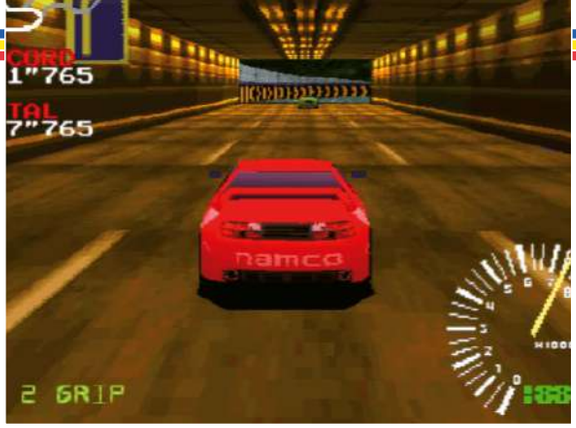
While the PlayStation controller's D-pad did a decent job of tapping into the arcade's 'drift' racing style, Namco's self-produced neGcon controller (which was released in Japan on 1 January 1995,

RACING MACHINES

Namco manufactured four different styles of coin-op cabinet for the original *Ridge Racer* in Japan. The SD (standard) cabinet was equipped with a steering wheel, accelerator and brake pedals, and an up-down gearshift lever. The DX (deluxe) cabinet added a clutch pedal and six-speed gearbox, while also incorporating a steering wheel that was larger than that of the SD cabinet. On the DX cabinet, it was possible to change the position of the seat. There was also a three-screen version of the DX cabinet.

The fourth and most expensive *Ridge Racer* cabinet was the Full Scale option, which was built around a replica Eunos Roadster, complete with workable ignition and dashboard. The size and cost of this machine made it the least common *Ridge Racer* cabinet in Japan, although it could be found at half a dozen UK locations in 1993. The later Rave Racer cabinet was based on the Full Scale *Ridge Racer* machine, only replacing the Eunos Roadster shell with that of a Honda CR-X.

The first two-player *Ridge Racer* cabinet was the Twin model used for 1994's pseudo-sequel *Ridge Racer 2*, but this was simply constructed from two connected SD *Ridge Racer* cabinets. The Twin cabinet's high player turnover quickly established this as the most popular early *Ridge Racer* machine in the department stores and large arcades of Japan.



▶ just three weeks after the launch of the PlayStation and *Ridge Racer*) provided an even more faithful version of the coin-op's unique 'feel'. The neGcon (pronounced ne-ji-con, based on nejiru, the Japanese verb for 'twist') could be twisted to steer *Ridge Racer*'s powersliding cars, with the left and right halves of the pad joined by a swivel connection, and it also featured analogue buttons to facilitate gradual acceleration and braking.

From the perspective of the nine-man PlayStation *Ridge* team, the next major development challenge was posed by the CD-ROM format itself. "I have many memories of the development period," Sakagami says, "but the episode that still impresses me most when I think about it is to do with our investigation of loading times, and specifically how to work around them. Today loading times are normal, but at the time machines such as the Super Famicom were still using ROM cartridges, so there hadn't been any need to worry about loading times. So obviously once we started work on this CD-ROM game, we were really concerned by the prospect of loading times…"

Sakagami's anxiety over data access speeds might seem preposterous today, when players are still forced to sit through regular (and sometimes obstructive) loading times in their 'next-gen' games and when many games for Sony's third-generation PlayStation demand, or at least suggest, that players also install huge chunks of data to the hard disk in another time-consuming procedure. But back in the summer of 1994, with cartridge-based consoles still the standard, Sakagami was arguably right to be worried. "I felt as though any waiting times would leave a really bad impression," he admits, "especially considering that the PlayStation was this new high-spec piece of hardware. And our main programmer had the same opinion."

The stance taken by the *Ridge Racer* team was an innovative one, designed not to cut corners but to make the scenery of those corners more interesting to passers-by.

Sakagami explains: "Loading is one of the limitations of CD-ROM technology that it's impossible to cancel out. So we considered ways of ensuring that the player wouldn't be bothered by the waiting times; we tried to make sure that players would be happier with loading screens than without them. We noticed that the tempo of the game was at its worst in the intervals where players would quit a game to restart, or where they had to wait for the rankings to be displayed. So we decided to make it so that nearly all of the game data would be retrieved at the first Namco logo screen after the game boots up. And we also decided to make it possible to play *Galaxian* at that point. We were thinking 'Somehow we've got to make this waiting time more enjoyable!'"

The inclusion of a playable version of *Galaxian* at *Ridge Racer*'s loading screens was more than just a gimmick, though – it was also one of the earliest shows of a developer referencing its own company's retro game heritage within an advanced 3D game, signalling the potential gulf between polygon-pushing software on CD-ROM and everything that had gone before. A lo-res rendition of the game in auto-play was also displayed on the gigantic virtual LCD panel above the entrance to the first tunnel on *Ridge Racer*'s now iconic first racing circuit, in another show of the future embracing the past.

We ask why, of all Namco's classics, *Galaxian* was selected to enhance *Ridge Racer*'s scenery. "Because I was on the team that made the *Galaxian* arcade, so I determined to include this excellent creation in honour of my old boss," Sakagami smiles. He clearly has great affection for *Galaxian*, and the manner of its inclusion was exciting for Sakagami: "I was shocked, because the day after we'd had this idea I found that it was already implemented in the software. The previous night, I delivered the visual materials to our lead programmer and just told him, 'Look, this is how you should configure the screen. Would you put *Galaxian* in there?' I don't know if he was just really busy with other work at the time, but his only response was a slight nod; and then, when we booted the game up the next day, there it was, almost perfectly implemented and only requiring a couple of minor adjustments. I remember being really excited by this!"

With loading times effectively concealed beneath the pixelly wonders of Namco gaming circa 1979, the PlayStation *Ridge* team's final and most important challenge was to ensure that this version of the game replicated, or at least came close to replicating, the cutting edge *Ridge Racer* coin-op. Ironically, one solution compounded another problem, as Sakagami explains: "Because we imposed this limitation whereby all of the game data was retrieved at once, drawing the graphics became a really difficult task. To ensure certain texture resolutions and capacities, we made many different texture designs by modifying identical textures from the same 16-colour palette."

The PlayStation was comparatively powerful in the context of home consoles, but it was no match for Namco's System 22 arcade board. To get past the discrepancy, Sakagami says, his team "put everything into coming up with various schemes and devices [to cut corners]. To be honest," he continues, "a third of the information that users saw on screen was the road surface. This was an important factor in reproducing the sense of speed that the *Ridge Racer* arcade had. And we decided to use high-resolution textures for the road surface, rather than normal resolution ones."

The coin-op's constant 60 frames-per-second display would remain out of reach until 1997 (see 'The Perfect Drive' boxout), and there were other conversion challenges that the PlayStation *Ridge* team struggled to meet, as Sakagami reveals: "In the arcade version of *Ridge Racer* the camera is located at a slightly lower level than the car's window, which is to make the game feel quicker. But when we tried to replicate that camera position in the PlayStation version, it always resulted in the road surface textures clipping, or appearing to flash. In simple terms, the more seams there are between polygons, the more easily this can be avoided; but to display so many polygons while also protecting the 30fps display we'd achieved was a really difficult task. We did some balancing while modifying all of the car and course data, and we polygonised the white lines on the road surface, which would otherwise have been really jagged. We ended up finding better balance through trial and error, in spite of the limitations of the hardware."

Ridge Racer was unique and hugely influential on the subsequent course of arcade and console racing games, and the series continues to be popular in Japan. While detailed driving sims have been more fashionable in recent years, the carefree nature of the *Ridge Racer* series, with its daft sense of speed and scintillating 'drift' routines, deserves to be appreciated. Yozo Sakagami concurs, explaining his love of the original: "I like the sense of speed and the drifting, and also the sound. Even though *Ridge Racer* doesn't feature real cars, I think it presents great entertainment as a game. There are so many car games, but *Ridge Racer* is different from other companies' racing games: even for people who can't drive in real life, if they play *Ridge Racer*, they get a sense of how good it must feel to drive fast." ✱

» Some Namco promotional material showing a *Ridge Racer* arcade cabinet in all its glory.

DEVELOPER HIGHLIGHTS

PAC-MAN
SYSTEM: ARCADE (PORTED TO VIRTUALLY EVERY FORMAT)
YEAR: 1981

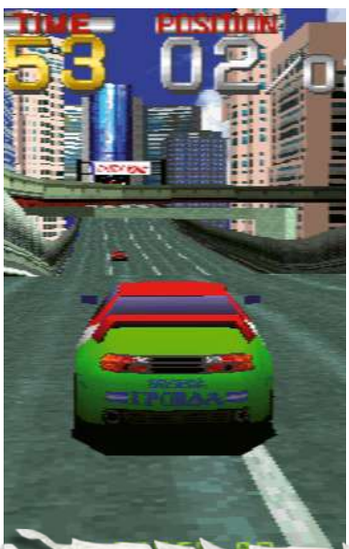
STARBLADE (PICTURED)
SYSTEM: ARCADE
YEAR: 1991

YUU YUU HAKUSHO
SYSTEM: SUPER FAMICOM
YEAR: 1993

» Namco's past and future were caught together in the transition from 2D to texture-mapped 3D advanced by *Ridge Racer*.

"If we had gone with a Formula 1 style of racing game, would Ridge Racer have been so loved by players?" Fumihiro Tanaka

» How many miles have you clocked up in Ridge City? The now extensive *Ridge Racer* series has stayed loyal to the fictional location of *Ridge Racer*'s iconic roads.



THE PERFECT DRIVE

The definitive console version of *Ridge Racer* appeared in Japan exactly four years after the launch of the PlayStation and its 30fps *Ridge Racer*. Bundled with *Ridge Racer Type 4*, the *Ridge Racer Hi-Spec Demo* achieved a 60fps refresh rate and also featured Gouraud shading, as used in *Ridge Racer Type 4*, to further enhance the visual impact of the original PlayStation *Ridge Racer* game engine. Sakagami and Co had wanted to hit 60fps in 1994, but that proved impossible: "Many of the ideas we couldn't implement in *Ridge Racer* turned up later in the series, such as an arcade-perfect 60fps refresh rate…"

TOP 25 NINTENDO 64 GAMES

Retro Gamer readers have cast their votes and top developers have had their say – these are your top 25 games on Nintendo's groundbreaking console. Join Nick Thorpe for the countdown…

Developer Top Picks

Blast Corps

"I remember when *Blast Corps* came along – the crew was gathered around an N64 saying, "No way! How are they doing that?" I love seeing creativity and innovation in gaming, and *Blast Corps* didn't just manage to do it on a technical level, but they innovated along the lines of the actual game design"

Doug TenNapel
(Earthworm Jim, The Neverhood)

Jet Force Gemini

DEVELOPER: RARE **YEAR:** 1999
GENRE: THIRD-PERSON SHOOTER

25 **Kicking off your** top 25 is the first of many Rare games. *Jet Force Gemini* combines elements of platform and shooting games, both genres in which the developer was proficient during the N64 era. As a result, you'll have a lot of exploring to do as you seek to push back the forces of Mizar, the game's antagonist. Customisable multiplayer modes round off an accomplished package, as is common for Rare games.

International Superstar Soccer 64

DEVELOPER: KONAMI COMPUTER ENTERTAINMENT OSAKA
YEAR: 1997 **GENRE:** SPORTS

24 **Konami's follow-up** to its SNES hit *ISS Deluxe* was a huge presentation upgrade, taking advantage of the N64's power. Aided by the inclusion of some hilarious commentary, the new 3D visuals greatly enhanced the game's sense of realism. And while the game didn't feature real player names, it was easily a match for *FIFA 98: Road To The World Cup*.

Excitebike 64

DEVELOPER: LEFT FIELD PRODUCTIONS
YEAR: 2000 **GENRE:** RACING

23 ***Excitebike*'s return in** 2000 was as welcome as it was unexpected, with the series having largely lain dormant since the 1984 debut of its NES precursor. The dirt track racing proved a good fit for the move to 3D, and the addition of mini-games and a track editor gave the game real longevity. Unfortunately, *Excitebike 64*'s release was delayed until the N64's mid-2001 decline in the UK, perhaps explaining its low position in your chart.

Beetle Adventure Racing

DEVELOPER: PARADIGM ENTERTAINMENT
YEAR: 1999 **GENRE:** RACING

22 **Even the greatest** of games can look like losers on paper – after all, "an Italian plumber goes running and occasionally jumps on turtles" is the no-frills description of one of the most important games of all time. So it is that we come to *Beetle Adventure Racing*, a licensed racing game in which players can only choose a single model of car – but unlike the likes of *Ferrari F355 Challenge*, the single model is a modest economy car. However, in spite of a distinctly unexciting premise, *Beetle Adventure Racing* delivers a surprisingly good experience.

The key word in the title is "Adventure" as the game's six tracks has a distinctive theme, from the Egyptian-themed Sunset Sands to the quintessentially English Coventry Cove. *Beetle Adventure Racing* is a game in which you'll rarely stick to the track, too. In a similar fashion to arcade racers such as *GTI Club* and *Hydro Thunder*, each track is filled with shortcuts and alternative routes, allowing players to crash through barns, tear down narrow side streets and even drive through caves. These secret routes often hide items, from nitro boosts to points used to unlock extra arenas in the multiplayer Beetle Battle mode.

Diddy Kong Racing

DEVELOPER: RARE **YEAR:** 1997
GENRE: RACING

21 **15 years before** Sonic and his mates raced each other across land, sea and air, Rare busted out planes and hovercrafts in an attempt to claim *Mario Kart*'s throne. Depending on the course, players could choose either of these vehicles or karts, with drivers such as Banjo and a pre-booze Conker joining Diddy Kong on the starting grid.

The real strength of *Diddy Kong Racing* lies in its excellent Adventure Mode, which provides a satisfying single-player experience unlike that offered by *Mario Kart*. Winning regular races unlocks boss races, beating bosses opens up coin-collecting challenges, and so on – there's a hell of a lot to do over the game's 30 courses before you ever get any other players involved.

Super Smash Bros

DEVELOPER: HAL LABORATORY **YEAR:** 1999 **GENRE:** BEAT-'EM-UP

20 **The N64 is** one of the all-time great multiplayer consoles, in part due to Nintendo's shrewd inclusion of four controller ports on the console, and party-oriented games like *Super Smash Bros* helped to cement that reputation by allowing Mario, Pikachu, Link and Samus to beat each other up.

The key to the wide appeal of *Super Smash Bros* is its deliberate avoidance of fighting game conventions. The game's violence is cartoonish, the controls are simple and even traditional life bars are discarded, in favour of a percentage system that has no definite knock-out point. Platform-based stages and randomly generated items mix things up further, creating a chaotic environment in which everyone has the potential to win a round.

"I'd never played anything quite like it before, nor have I since. The combination of the great characters, writing, music and quirky Japaneseness (it's a word) make it a very unique experience"
Nathan Wind

Mystical Ninja Starring Goemon

DEVELOPER: KONAMI COMPUTER ENTERTAINMENT OSAKA
YEAR: 1997 **GENRE:** ACTION-ADVENTURE

19 **While Goemon and** chums starred in three N64 adventures, it's the first one that makes the cut here. This action-adventure follows the titular hero and his companions Ebisumaru, Yae and the mechanical ninja Sasuke, as they try to work out just who was behind a UFO attack which turned the Japanese Oedo Castle into a European-style castle.

This is one of the more surprising entries in your top 25, as sales weren't tremendous and critical reception was mixed. However, it has cult appeal – the game's medieval Japanese setting and bizarre sense of humour give it a unique boost.

Paper Mario

DEVELOPER: INTELLIGENT SYSTEMS **YEAR:** 2000 **GENRE:** RPG

18 **Much like Square's** SNES outing *Super Mario RPG*, *Paper Mario* drops Mario and his friends into a role-playing game with an eye-catching visual style – indeed, *Paper Mario* was announced as *Super Mario RPG 2*. But where the SNES game tried to punch above its weight with pre-rendered 3D visuals, the N64 game goes in the opposite direction, with every character represented as a lovingly drawn paper-thin cut-out instead.

Though it operated a menu-based combat system, *Paper Mario* included an active element in battles with the use of the 'action command' system – button presses timed with attacks or guards would increase the effectiveness of your attacks, elaborating on *Final Fantasy VIII*'s implementation of a similar system. However, it was the setting rather than the mechanics that made *Paper Mario*, with the Mushroom Kingdom coming alive thanks to Goomba families, a green-eyed Luigi and Bowser's unceasing belligerence.

Pokémon Snap

DEVELOPER: HAL LABORATORY/PAX SOFTNICA
YEAR: 1999 **GENRE:** PHOTOGRAPHY

17 **A first-person rail** shooter of a rather different kind, *Pokémon Snap* challenges players to shoot photos of Nintendo's collectable critters. You play a Pokémon photographer who travels through a variety of environments in a small rail cart, taking photos which are then scored by Professor Oak. Higher points are awarded for keeping the Pokémon in the centre of the frame, catching it doing interesting things and getting more than one of the same species in shot.

It's a simple game, but one enhanced by the level of interaction afforded by items which can be thrown – food will lure Pokémon in for better shots, while pester balls will make them angry and extract them from hiding places. While the selection of Pokémon featured is pretty small at just 63 of the original 151, their interesting animations and the diversity of the game's seven courses hook players easily.

1080° Snowboarding

DEVELOPER: NINTENDO EAD **YEAR:** 1998 **GENRE:** SPORTS

16 **Nintendo EAD isn't** traditionally thought of as a great developer of sports games, but *1080° Snowboarding* isn't a traditional Nintendo EAD game. While Japanese staff made up the bulk of the team, the coding was handled by two Englishmen, ex-Argonaut programmer Giles Goddard and Colin Reed, who has most recently been working on the *Forza Motorsport* series. Compared to contemporary snowboarding games like the *Cool Boarders* series, *1080° Snowboarding* took a more realistic approach to the sport, placing a greater emphasis on technical aspects such as correctly landing after tricks.

That emphasis on realism carried over to the game's visuals, and *1080° Snowboarding* was graphically incredible upon release. Sunlight was reflected in the snow in a manner quite unlike anything else seen at the time, characters didn't exhibit the joints between limbs that were common in so many other games, and there was even a little lens flare on the camera. The gameplay was equally impressive, thanks to level designs which included hidden routes and a variety of natural places to perform tricks, securing *1080° Snowboarding*'s status as an unexpected but undisputed hit.

"I love the way it concentrates on racing rather than tricks, the sunsets and reflections look great, even the menu was fun. You also get to play as a panda"
Fightersmegamix

Conker's Bad Fur Day

DEVELOPER: RARE
YEAR: 2001 **GENRE:** PLATFORM

15 ***Twelve Tales: Conker 64*** didn't stand out from the crowd when it was announced, so Rare extensively retooled its planned family-friendly platformer into the tale of a foul-mouthed alcoholic squirrel. The changes clearly worked out – after all, who can forget their first encounter with the Great Mighty Poo?

Lylat Wars

DEVELOPER: NINTENDO EAD
YEAR: 1997 **GENRE:** SHOOT-'EM-UP

14 **Better known as** *Star Fox 64* elsewhere (including the 3DS update), this on-rails shooter bundled the N64's Rumble Pak peripheral. The game expanded on its SNES predecessor by offering free-flight boss areas. It also gave us the "do a barrel roll" internet phenomenon…

WWF No Mercy

DEVELOPER: AKI CORPORATION
YEAR: 2000 **GENRE:** BEAT-'EM-UP

13 **The best wrestling** game ever? It could be – fans still love its refined grappling system over a decade later. *No Mercy* perfectly encapsulates the popular Attitude era of the WWF, and is packed with big names like The Rock, Stone Cold Steve Austin and The Undertaker.

Pilotwings 64

DEVELOPER: NINTENDO / PARADIGM ENTERTAINMENT
YEAR: 1996 **GENRE:** FLIGHT SIMULATOR

12 **Just as *Pilotwings*** had demonstrated the Mode 7 backgrounds of the SNES, *Pilotwings 64* is a spectacular demonstration of the 3D environments that the N64 offers. Using a jetpack and hang glider in the main game is fun, but the bonus cannon event remains our favourite.

Perfect Dark

DEVELOPER: RARE
YEAR: 2000 **GENRE:** FIRST-PERSON SHOOTER

11 **Trying to top** the success of *GoldenEye* was an unenviable task, but one which Rare set out to achieve with this sci-fi shooter. As a late release that utilised the N64's Expansion Pak accessory, *Perfect Dark* boasted substantially improved visuals over its predecessor.

"Rare at the height of its powers. Powers that would extend throughout its N64 canon, in fairness, but this is the kind of original concept that's missing from Nintendo's consoles today"
Team Alfie

Blast Corps

DEVELOPER: RARE **YEAR:** 1997 **GENRE:** ACTION

10 **Smashing things is** fun. That isn't an opinion, that's a universal truth known even to babies, who giggle as they clumsily knock over their building blocks at nursery. *Blast Corps* recognises this fact, and gives the player the opportunity to smash buildings in a multitude of ways. This usually has a purpose, such as clearing a path for a nuclear truck, but you'll never care too much about that because the fun of demolition is always your primary concern.

The vehicles on offer allow players to demolish buildings by sliding the tail of a truck, attacking from the side with extending arms and even just charging straight in. But our favourite is the jetpack, which allows you to soar into the air before raining down destruction upon the helpless concrete constructs.

Banjo-Kazooie

DEVELOPER: RARE **YEAR:** 1999 **GENRE:** PLATFORM

9 **We've already seen** the last of Rare's N64 platformers pop up in this list, and the first joins it here. *Banjo-Kazooie* was one of the games which gave Rare a formidable reputation for crafting 3D platform games, and for good reason. The dynamic duo of a bear and a bird employed a variety of different techniques in their quest to rescue Banjo's sister Tooty.

Drawing on Rare's design work on the *Donkey Kong Country* series for the SNES, item collecting was a huge part of *Banjo-Kazooie*, to the point that the pause screen tracks seven different types of pick-ups as well as displaying your life and energy. Each stage is packed with things to do as a result, making the game a dream for both intrepid explorers and completion fanatics.

"Treasure was on fire with this one, just technically astounding – the carrier level lived long in the memory"
adippm82

Sin & Punishment

DEVELOPER: TREASURE
YEAR: 2000 **GENRE:** SHOOT-'EM-UP

8 **The N64 wasn't** popular in Japan, where it finished in third place behind the Saturn, and there are few essential import games as a result. But if there's one game that made owning an import-ready N64 worthwhile, it was *Sin & Punishment*. Treasure's game is much like a 3D *Cabal*, with the N64 pad allowing you to move and aim independently. As an arcade-style blaster the game is on the short side – a proficient player can beat it in less than two hours – but it's packed full of bosses and set-pieces that ensure you'll return to it. *Sin & Punishment* is now available to international audiences, as it was translated and released on the Wii's Virtual Console.

Wave Race 64

DEVELOPER: NINTENDO EAD
YEAR: 1996 **GENRE:** RACING

7 **Sometimes, a game** does just one thing so well that it has the potential to overshadow everything else in the game. In *Wave Race 64*, the sequel to a tame top-down racer for the Game Boy, that thing was water. No other game captured the look and feel of racing on water in quite the same way and while it might not have retained the visual impact it had in 1996, *Wave Race 64*'s water physics remain hugely impressive.

The rest of the game is impressive too, due largely to excellent track design. It doesn't have the exuberance of a game like *Mario Kart 64* or *Diddy Kong Racing*, but it does boast some spectacular graphical effects.

F-Zero X

DEVELOPER: NINTENDO EAD
YEAR: 1998 **GENRE:** RACING

6 **If you've never** played *F-Zero X* before, you might be looking at it here and wondering what all the fuss was – and is still – about, but allow us to put your doubts to rest. The game looks incredibly sparse, but this deliberate visual restraint allows it to convey an unrivalled sense of speed at a high frame rate. Moving into 3D visuals allowed Nintendo EAD to experiment with some crazy anti-gravity track designs that just weren't possible on the SNES, with players racing inside and outside of pipes, as well as around full loops. There's even a random track generator, which extends the game's lifespan far beyond other racing games.

Developer Top Picks

Mario Kart 64
"I remember playing it in four-player mode at the King Of The Jungle offices and wanting to murder anyone that red-shelled me! It was manically addictive in multiplayer mode, and definitely an office favourite for a while. Nothing better than getting the invincibility star and squashing all your mates"
Raffaele Cecco
(Exolon, Stormlord)

The Legend Of Zelda: Ocarina Of Time
"Life just ground to a halt for two or three weeks while I completed the game. The simplicity of control with the wide variety of things you can do is just what I want from a game like this. Miyamoto at his best once again"
Jon Ritman
(Match Day, Head Over Heels)

Wave Race 64
"I used to be a programmer for many years, so when games appeared that were technically spectacular, I not only appreciated them on a gameplay level but on a 'how the heck did they do that?' level. *Wave Race 64* had me scratching my head as the simulation and feel of zipping across really choppy water was excellent"
David Perry
(Earthworm Jim, MDK)

Diddy Kong Racing
"It was a great game to be involved with, and I loved the twist of the added storyline and adventure element. It wasn't just a racing game, but had a little of everything. The Rare sense of humour, and the cross between *Mario World* with a racing genre, just made it exciting and new"
Kevin Bayliss
(Killer Instinct, Diddy Kong Racing)

GoldenEye 007
"If I'm only allowed one, it's clearly *GoldenEye*. I was so addicted it quite literally caused *Alundra*'s release to be late. I kept thinking about it when writing the English version of *Alundra* and taking breaks to play it, which turned into a diversion of an hour or more every time"
Victor Ireland
(Lunar: The Silver Star, Alundra)

Mario Kart 64

DEVELOPER: NINTENDO
YEAR: 1996 **GENRE:** RACING

5 **Hands up: how** many of you have sworn over being blasted with lightning on the Wario Stadium jump? Quite a few, we're guessing. *Mario Kart*'s multiplayer has always drawn out a variety of emotions, creating memories that have propelled the game into your top five.

The first 3D *Mario Kart* game introduced many recurring elements of the series, including mini-turbos for drifts, fake item boxes and the dreaded leader-seeking blue shell, while removing the CPU-only special items found in *Super Mario Kart*. But for all of these improvements made to the already sterling formula, the biggest upgrade came from the hardware itself – amazing four-player split-screen multiplayer.

The Legend Of Zelda: Majora's Mask

DEVELOPER: NINTENDO EAD
YEAR: 2000 **GENRE:** ACTION-RPG

"I know most people will prefer *Ocarina Of Time*, but *Majora's Mask* proved that the series could take a turn to the dark side, and do it so well"
gunbladelad

4 **Few games have** a more compelling premise than that of *Majora's Mask*. Faced with the impending disaster of a falling moon that will obliterate Termina in just three days, Link must travel back and forth in time to save the world. Dungeons follow the excellent template set out by *Ocarina Of Time*, but other mechanics take centre stage in *Majora's Mask*. With control over time allowing the player to work out the daily routines of the townspeople and a variety of masks to affect their reactions to Link, the game features a deeper level of interaction with other characters than prior *Zelda* games.

GoldenEye 007

DEVELOPER: RARE **YEAR:** 1997 **GENRE:** FIRST-PERSON SHOOTER

3 **Miles in front** of the fourth-placed game is Rare's N64 masterwork. It might have arrived two years after the film, but that didn't hurt this James Bond tie-in one bit – after all, it would have been churlish to criticise the timeliness of a game this good.

The key to Rare's approach was a flexible adherence to the movie's script. Stages were crafted from very small sequences of the film or even made up entirely. What's more, the game's excellently designed stages included a variety of objectives that could be tackled in the order of the player's choosing, giving a sense of freedom that was uncommon in games of the time.

But the single-player mode is only half the story. Given the longevity it lent to the game, it's surprising that multiplayer wasn't a key part of the game's design from the beginning. The mode was added late in development, but proved to be an important selling point for the console as well as the game – the superb deathmatch mode was the perfect advert for the N64's four control ports, and helped to cement the system as the machine of choice for multiplayer fanatics.

While Rare would later develop its first-person shooter template further with *Perfect Dark*, readers have remembered the impact that *GoldenEye* had upon release. As well as being a rare example of a worthwhile movie licence, the game proved that consoles could host first-person shooters that were at least as good as those on PC, if not better. Keyboard warriors could keep *Quake* – N64 owners were too busy crowding around the TV for split-screen *GoldenEye*.

"It absolutely nailed the atmosphere of being James Bond, from the comedy enemies to the ricocheting bullet sounds and the awesome music – somehow it's much closer to the movie feel than most Bond games that followed"
Qazimod

The Legend Of Zelda: Ocarina Of Time

DEVELOPER: NINTENDO EAD
YEAR: 1998 **GENRE:** ACTION-RPG

2 **Only narrowly missing** the top spot is the first 3D *Zelda* game, one of the greatest games ever designed. Link's fifth quest sees him once again taking on Ganondorf, seeking to prevent him from obtaining the Triforce and dooming Hyrule. The move to 3D granted the series an unprecedented sense of scale, which hits players the first time they set out across Hyrule Field – this was a huge world with lots to experience, from riding the horse Epona to entering the pit of Jabu-Jabu's belly. Time is the game's key mechanic, with Link appearing in both child and adult forms, each with different abilities – young Link can crawl through small spaces, while adult Link can use the hookshot, for example.

Much like *Super Mario 64*, *Ocarina Of Time* provided key advances in the design of 3D games. Rather than turning the game into a hybrid puzzle-platformer, Nintendo gave Link the ability to jump automatically as he reached platform edges, allowing the player to work out the puzzles without worrying about control. In order to ensure that players could fight battles adequately, Z-targeting was introduced, with players holding the Z button to lock on to an enemy and make movements relative to its position.

It isn't quite perfect – Nintendo notably addressed the design flaws around the Water Temple in the 3DS version of the game – but it's as close as anyone had seen in 1998, and launched to universal acclaim, selling over 7 million copies. As a result, *Ocarina Of Time*'s design has formed the basis of every 3D *Zelda* game released since. Those sequels have made the formula familiar, but *Ocarina Of Time* was an utterly groundbreaking game, an expansive and engrossing adventure that played like a dream – a game truly worthy of the word "epic".

Super Mario 64

DEVELOPER: NINTENDO EAD **YEAR:** 1996 **GENRE:** PLATFORM

1 ***Super Mario 64* isn't** just a great game – it changed gaming forever. For players, it was a rare treat. 2D *Mario* platformers had been straightforward affairs – even if there were hidden exits to find and a variety of abilities for Mario to use, the aim of the game was usually still to make it from your starting point to a single finishing point. *Super Mario 64*'s levels were wide environments designed for exploration, and the whole game changed around that fact. Staple enemies like Goombas were suddenly much easier to avoid and became more of a minor hindrance than a serious threat, in part thanks to Mario's new health meter. Goals, rather than being points at which the level finishes, were now tied to objectives – beating bosses, collecting red coins, winning races and so on. Each stage had multiple goals, and the sight of a well-placed star outside of your objective often caused players to pause and try to figure out how to reach them ahead of time. This non-linearity extended further, as the stars opened up new stages in batches, meaning that it was hard to ever become truly stuck.

For developers, *Super Mario 64* was a masterclass. Despite a lack of prior experience with 3D game design, Nintendo delivered a full slate of impressively designed levels, filled with challenging and inventive objectives. Even the simple act of moving Mario was a joy – the N64's boldly different control pad gave many players their first taste of the subtleties of analogue control, with a light push producing a slow tiptoe and a heavy push producing a full-on sprint. That wasn't all, as Mario gained new abilities like the triple jump and backflip, which proved useful for leaping those hard-to-cross gaps. Particularly pleasurable was the act of trying to force Mario up a hill, watching his legs working ever harder until he fell forward and slid back down.

The platform genre had a variety of competing designs in the early days of 3D, from conservative 2.5D efforts such as *Pandemonium* to the idiosyncratic approach of *Jumping Flash*. However, it's easy to forget this, as *Super Mario 64* quickly rendered almost all of them obsolete and subsequent games such as *Banjo-Kazooie* and *Gex 3D* borrowed heavily from its design. Design features we now take for granted, such as dynamic cameras, owe a heavy debt to the work of Shigeru Myamoto and his team.

All of this, and *Super Mario 64* was a launch game. It was an almost impossibly convincing reason to buy the console on day one, which remained compelling years after the hype had faded. Yes, this is your top N64 game – but there's a strong argument to be made that it is the best game ever, too.

Five Reasons Why It's Great

1 It didn't just clone the 2D gameplay, instead adapting the *Mario* experience to a 3D environment.

2 The non-linear progression left players spoiled for choice when choosing the next stage to challenge.

3 The game's precise control was unlike anything else available, instantly justifying the N64's analogue stick.

4 Sliding down an icy slope while racing a penguin remains one of gaming's greatest joys.

5 Even after you had collected all 120 stars, there was still one last secret to find...

Developer Top Picks

"My favourite is *Super Mario 64*, although my kids at that time were devoted to *Pokémon Snap*"
Trip Hawkins
(Founder, EA and 3DO)

"The one that stands head and shoulders above the rest is *Super Mario 64*. It was absolutely revolutionary, getting so many things right on its first attempt and even now, three generations later, it's still as playable as it was back then"
Steve Ellis
(GoldenEye 007, Perfect Dark)

"My memories of seeing and playing it for the first time still make me smile. The design of it, the controls, the feel, the characterisation of Mario, the accessibility, the wide appeal are all things that stand out to me and make it such a fun game to play"
Mark Edmonds
(GoldenEye 007, Perfect Dark)

retro GAMER READERS' CHOICE

"If this game was released in its current form today it would still be just as well received as it was on release day, and that's the biggest compliment I can give it. I'm not sure you could say the same about any other N64 game. That's not to say they're bad – it's just that *Mario* is *that* good"

look at it sideways

Mike Posehn might describe himself as “not much of a game player”, but he was responsible for one of the defining games of the early Nineties. Get to the chopper and join pilot Nick Thorpe for a look back at EA's amazing game...

DESERT

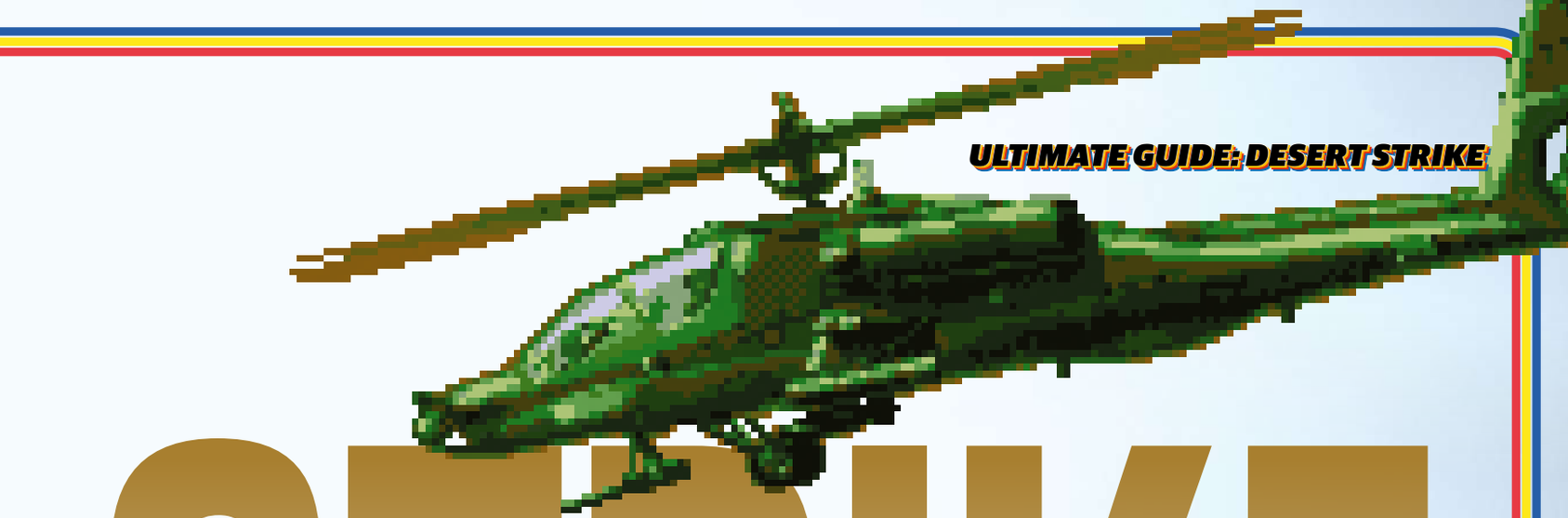
In today's gaming market, the open world ‘sandbox’ style of game is widespread – but in the early Nineties, if you wanted a more flexible approach to the shoot-'em-up, you were faced with a more literal sandbox because *Desert Strike* had few alternatives. “In early 1990 Trip Hawkins asked me if I would like to create a new game,” designer Mike Posehn recalls. It was an unusual request, in some ways – Mike's previous projects for Electronic Arts hadn't been games, but at the time he happened to be working on a flight simulator. “Trip had always liked *Choplifter* because of the 'cool feeling' it produced when you rescued people with a helicopter. EA gave me one of its 'artist work stations' which was a Sega prototype box board with a programmable game cartridge with an Apple Macintosh interface.”

Choosing Mike was even more of a surprise, given his feelings on videogames at the time. “I was not much of a game-player because I didn’t like the then-current flat 2D scroller style of game design,” he explains. His desire to break the conventions he disliked ended up influencing many of the design choices in *Desert Strike*. “I had always liked the isometric viewpoint because it gave the feel of 3D without the heavy lifting of supporting true 3D. I coded up a demo of a simple chopper that you could fly over little guy to do a rescue. If you flew slowly close to him, an automatic control would take over to lower the 'winch cable' and pick him up. It was really cool and it produced the satisfying 'rescue' feeling that Trip wanted.”

As a self-confessed non-gamer, Mike needed some assistance in adding structure to the demo, but the publisher helped out on this front. “EA paired me up with John Manley and we came up with a game script called '*Beirut Breakout*.' I did the technical design, but John was the true gamer who knew how to create compelling story that would be fun to play,” he recalls. It didn't take long to find that story, either. “The Lebanese civil war was in the news at the time, so doing flying rescues in the desert seemed like a natural setting that wouldn’t require a lot of explanation.” The story of the rise of the mad general Kilbaba, ▶

STRIKE

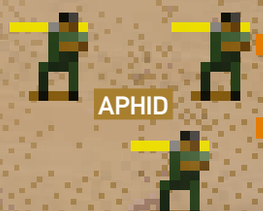
RETURN TO THE GULF

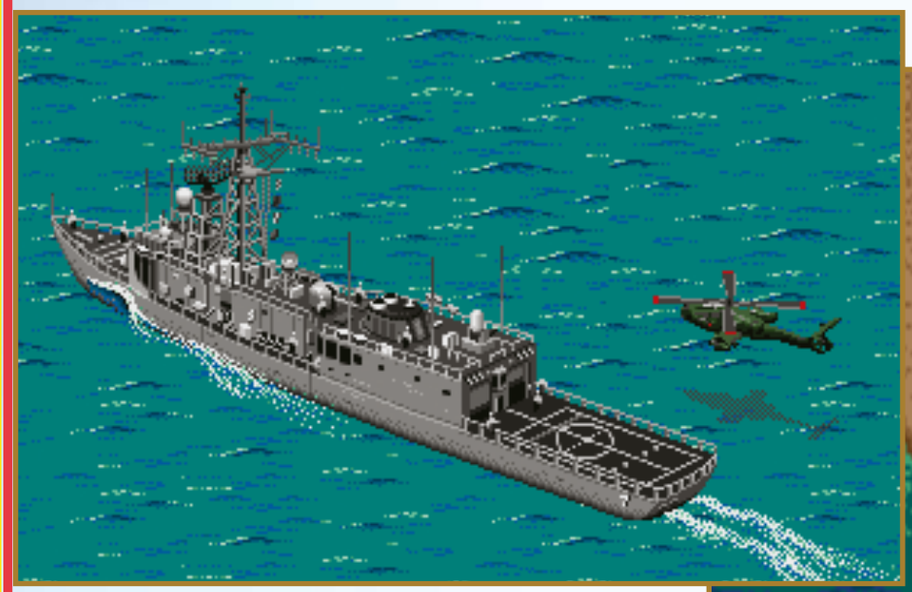


» Copilots had different stats, but the best one had to be rescued from the battlefield.

» Key targets, like this missile silo, are often heavily defended – approach with caution.

» Buildings could often hide pick-ups – but just as often an enemy would be waiting.





» Every campaign begins on a frigate, and you'll have to make it back there alive.

» Kilbaba attempts to destroy his own oil fields in the chaos of the final campaign.

▶ who has seized control of an unidentified Gulf country and set to work on building nuclear bombs, certainly doesn't seem that far-fetched even now.

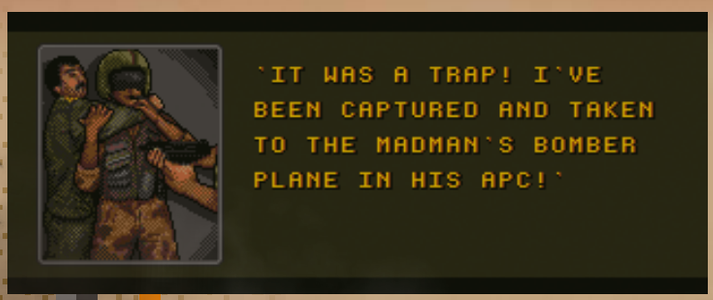
The result of these early design choices is that *Desert Strike* was quite different to other Mega Drive shooting games, which were predominantly arcade-inspired. Your Apache helicopter was a weighty piece of hardware, noticeably affected by its own momentum, and you start out with powerful weaponry but must constantly replenish your ammunition. However, the most important thing about *Desert Strike* was the open nature of its campaigns. This too was inspired by Mike's dissatisfaction with existing games. "Basically, I hated the rigid multi-level boss system that was so prevalent. I wanted the player to be unconstrained rather than locked in to a linear script," Mike recalls. "I thought you should be able to move freely about the world and just blow things up if that's what you wanted. But, we had to have a way to progress through levels; so John and I came up with the mini-missions and the snafu system."

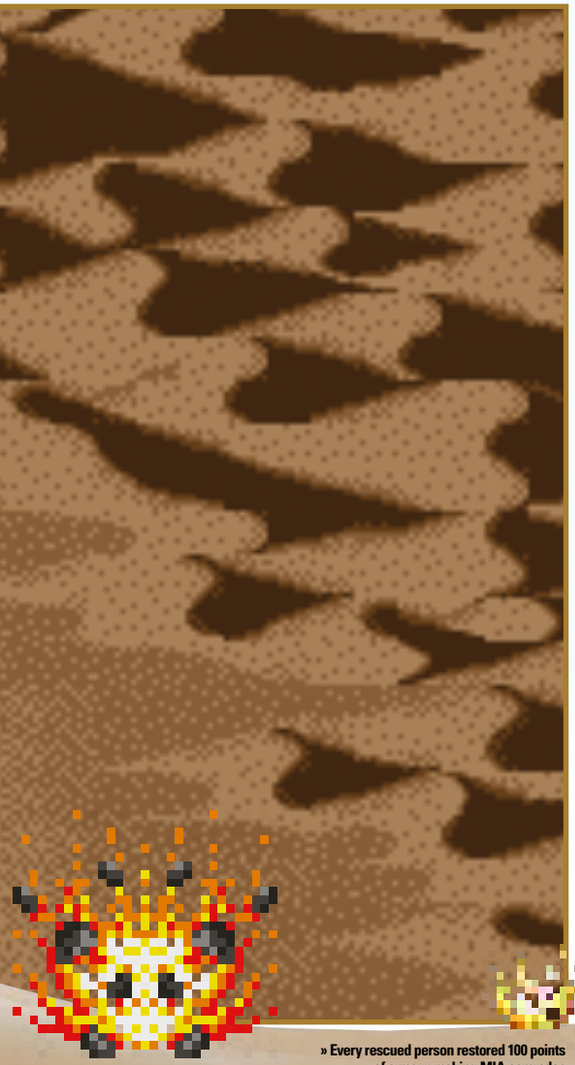
> **"I wanted the player to be unconstrained rather than locked in to a linear script"**
> Mike Posehn

"Each level had a main objective that you accomplished by completing a series of mini-missions," Mike continues. "Basically, it was virtually impossible to complete the main mission if you didn't complete the mini-missions first. When a mini-mission was completed, the enemy AI became a little less effective." These objectives were ordered in a way that made sense from a tactical perspective, so there was a key incentive to follow them. "For example, an enemy missile system's range and accuracy would decrease after you shot up the nearby radar installation," Mike offers. "With the radar intact, you would never be able to get through."

In fact, *Desert Strike* as a whole offers an excellent sense of progression. Each of the

» Occasionally you'll gain new information from captives or allies through brief cutscenes.





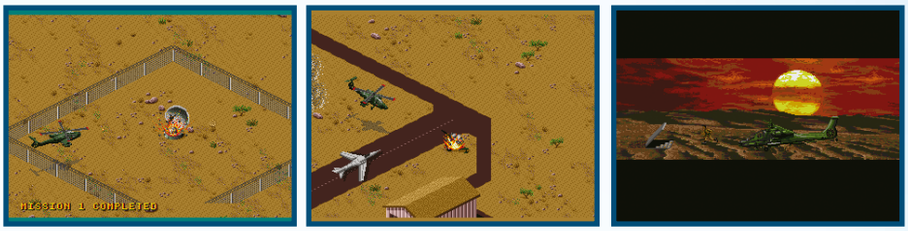
» Every rescued person restored 100 points of armour, making MIA comrades worth seeking.

campaigns takes place at a different time of day, and Kilbaba's desperation becomes palpable as the game continues – as well as encountering tougher defences, you'll go from pre-emptively striking airfields to countering the madman's attempts to flood the sea with oil and use nuclear weapons. It's an astonishing accomplishment considering the economy with which the levels had to be constructed: "The cartridge was advertised as '8 MEGS' – that meant eight megabits, only one megabyte! To save space all the art was made up of 8-bit square tiles. A 512x512 pixel region of the world was just 64x64 tiles. But instead of 4,096 unique tiles, it was just a catalogue of maybe 32 unique tiles. So that 512x512 pixel region could be drastically compressed into a simple look-up table. I think there were less than 80 bytes free in the final cartridge of *Desert Strike*."

Critical reception was rapturous upon the game's release in early 1992. In a 94% review for *Mean Machines*, the reviewer declared his love for the game's open-ended nature and described it as "one of the finest Mega Drive blasters yet seen". *Sega Pro* awarded the game 92% and described it as "essentially a full-scale war with all the sights, ▶

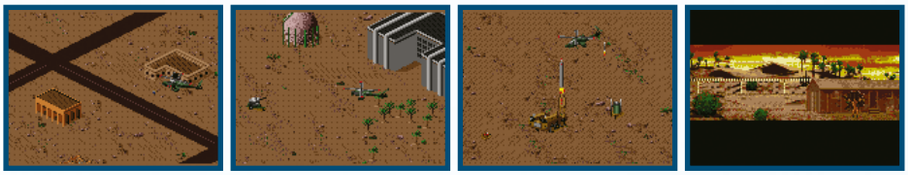
DEPOSING A DICTATOR

The road you'll take to kick Kilbaba out of power



CAMPAIGN 1: AIR SUPERIORITY

■ Your road to getting rid of Kilbaba starts here, in the morning sun. To start off, you'll need to blow up a pair of radar dishes . Prioritise removing the powerful Rapier surface-to-air missile launchers over the less powerful AAAs. Once these are gone, you can move on to the power station and then the airfield. Watch out – reinforcements will arrive as you work! After this, capturing enemy commanders should be easy, and you'll find out the location of your lost agent. Blow up the building hiding him, take out some VDAs while your copilot rescues him and then get back to the frigate.

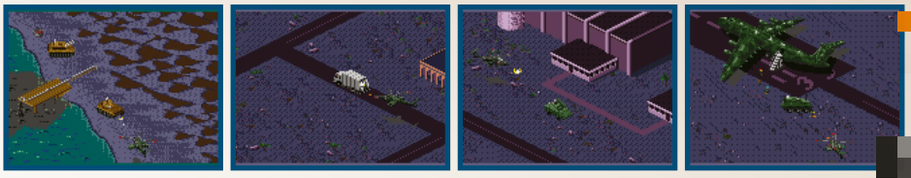


CAMPAIGN 2: SCUD BUSTER

■ This afternoon strike begins much like the first campaign, but with jailbreaks between the radar and power station missions. Clear as many enemies as you can, you'll need room to move when the reinforcements arrive. Once these missions are complete, blowing up the chemical weapons factory will flush out scud commanders. Each of the six knows where one launcher is, and you need to blow up five – thankfully, each is near the next commander. Having caused all that chaos, you can then get to work on liberating prisoners of war at the north of the map.

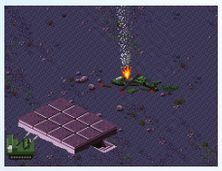
CAMPAIGN 3: EMBASSY CITY

■ This early evening mission is where things start getting very dangerous. Your first job is to rescue UN inspectors, who will tell you the location of biological weapon factories. Destroy these until you capture the chemist who tells you the location of secret missile silos that need a good bombing. You'll then do some work at sea, rescuing stranded pilots before confronting Kilbaba's heavily-guarded yacht – a much easier task if you blow up the power station. Lastly, you'll need to capture the enemy ambassador to free the US embassy officials – they'll escape by bus, and you need to escort them out.



CAMPAIGN 4: NUCLEAR STORM

■ Your final campaign takes place at night, and Kilbaba's going for a scorched earth approach. Save the oil fields from attack, then stop him dumping oil into the sea. Once this has been accomplished, you'll need to blow open four bunkers and rescue prisoners. From here, it's all about stopping nuclear war. You need to find the garbage trucks containing nuclear parts and blow them up, while avoiding civilian trucks, then blow up the nuclear facility. Finally, flush Kilbaba out of his palace with explosive force, chase him to his plane and make sure her never gets the chance to drop a bomb.



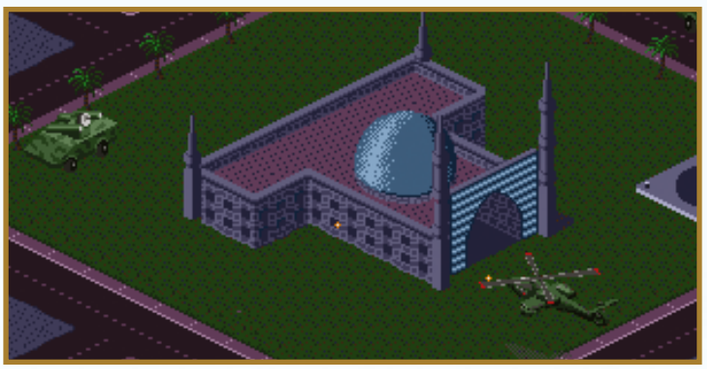
» *Desert Strike* is a challenging game, so expect to see yourself shot down a lot.

» Taking out strategic targets, such as radars and power stations, hampered enemies.

▶ sounds and gruesome trimmings crammed into an 8Mbit cart," while noting that some of the game's missions were "uncomfortably close to recent events in the Gulf".

Of course, making a game about a war in the Middle East is likely to be topical at any given moment, and that was the case for *Desert Strike*. While development had started during the declining months of the Lebanese Civil War, it had managed to stretch right through the Gulf War – indeed, a dedication to those who served in the conflict is found in the credits. This caused controversy in some quarters. "I was surprised to see a CNN report where they said, 'First the Gulf War and now a Gulf War videogame,'" remembers Mike. "Of course there was no such connection in our minds, but the game story was about a military dictator in a desert region. I suppose it was good publicity regardless and only helped game sales."

Mike's not wrong – the game sold massively well, becoming EA's biggest hit. The game was soon licensed for conversion to a variety of other formats, and spawned four sequels in *Jungle Strike*, *Urban Strike*, *Soviet Strike* and *Nuclear Strike*. Even though Mike no longer works on games today, it's a legacy he's fond of. "I'm continually surprised and pleased by the interest and I'm always happy to hear from fans who like the game," he tells us. "One of the best was from a fan in Brazil who loved the game so much as a teenager, he became a helicopter pilot in real life." That's an incredible situation, but *Desert Strike* was a game so distinctive that it invited obsession. Today, open world games are seemingly as constant as the armed conflicts that inspired *Desert Strike*, but it's arguable that they wouldn't be had it not been for the game's success – and that's an incredible gaming legacy for a designer who didn't really play many videogames. ✱



» Areas like Kilbaba's palace really stuck out amidst the sparse desert scenery. It's hard to miss.

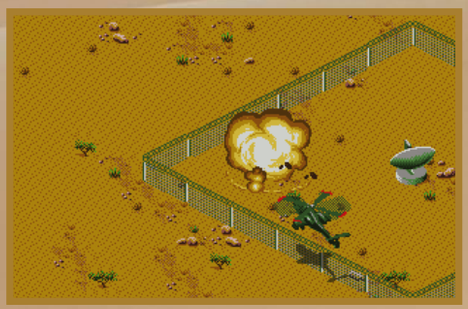
> **"A fan in Brazil loved the game so much as a teenager, he became a helicopter pilot in real life"**
>
> Mike Posehn

CONVERSION CAPERS

EA's biggest hit of the early Nineties was too big to stay confined the to Mega Drive – here's how it fared on other battlefields…

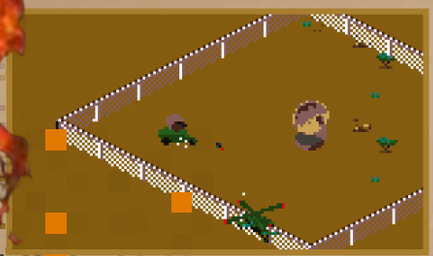
AMIGA 1993

■ The Amiga version of *Desert Strike* received some excellent new sampled audio, with MIA soldiers shouting for help and much meatier effects in general. Graphical updates are present too, with new explosions and a revised front end. However, having to switch between weapons manually is definitely an annoyance.



SNES 1993

■ Very little has been changed from the Mega Drive version – you'll notice a few audio differences but little else. However, as the graphics have been ported straight across and the SNES has a smaller horizontal display resolution, you lose about 20 per cent of your viewing distance, making the game slightly harder.



LYNX 1993

■ You might not get a detailed ground texture on the Lynx, but Atari's handheld comes out on top with an otherwise excellent rendition of the game. Unlike the other portable versions of *Desert Strike*, all three weapons are on separate buttons, giving an experience closer to that of the original Mega Drive game.

GAME GEAR 1993

■ Tiertex handled the Game Gear conversion, which falls short of the standard set by its Master System cousin. Redrawn visuals for the small screen are marred by a low frame-rate, but the real problem is an awkward control scheme that maps the main gun and Hydras to the same button.

Q&A: GERALD WEATHERUP

The former Ocean programmer tells us how Desert Strike was miniaturised for the Game Boy

Had you played *Desert Strike* before your team got the job of working on the Game Boy version? If so, what did you think of it?
No, I hadn't played it before we got the job to convert it. We were asked to play it and see what we thought. It was my type of game and I really enjoyed playing it, to be honest. The team was only small, for your reference – the artist was Dawn Drake and the sound and music was done by Jon Dunn.

What access to the original *Desert Strike* code did you have while programming the conversion?
I think we did have access to the code, but it wasn't really of much use at the time. Since it was all in assembly and specific to the platform it was difficult to translate that into a cut-down Z80. The approach as was normal at that time [was] to play the game, and rewrite it. Code reuse really wasn't an option with low level languages and different processors. We did have access to the graphics, though, which were re-rendered into four colours and shrunk as required.

What were the main challenges of getting *Desert Strike* running on the Game Boy?
There was a limited number of sprites available on the screen, 40 if I remember correctly, and they were 8x8 pixels in size. I had to write a specialist graphics application to grab the minimum number of sprites for the maximum size helicopter shape. And, there were only 256 background characters available for the ground graphics.

I deployed various methods to get extra sprites on the screen. It was possible to turn the list upside down every frame and use the persistence of the LCD to fake another 40 sprites. Also, you could convert the sprites into background graphics.

Since the cartridge space [on the Game Boy] was a premium, the size of the levels and the amount of graphics used was also a challenge. Various compression methods had to be employed: for example, for ground maps, decompressing graphics only when they where required. Buildings in one part of the map are not used in others, so as some buildings go off the screen their space is then freed up so new graphics can come in.

How long did your team have to work on the game, was it a tight deadline?
I think we had about six months end to end. For any product Christmas was the best selling period, and with manufacturing a few months before it was always a challenge.

What aspects of the Game Boy version of *Desert Strike* were you most pleased with?
The feel of the game. I spent lots of time ensuring that the feel of the game was as good as I could get – for me, in playing any game the playability was the number one requirement.

Did anything particularly funny or unusual happen while you were working on the game?
At one point I was sleeping under my desk due to time constraints on getting the project done!

PC 1994

■ Gremlin's PC version is an odd cross between the Amiga and Mega Drive versions. Some graphics have been redrawn again, for the worse, while sound is generally of a lower quality than the Amiga game. On the other hand, the added speech effects are welcome.

MASTER SYSTEM 1993

■ The Kremlin did a superb job of squeezing *Desert Strike* into the comparatively limited Master System, with the gameplay and map design of the original maintained on the 8-bit format, and a good two-button control scheme with the 1 and 2 buttons used together for Hellfires.

GAME BOY 1994

■ The Game Boy version has the same slightly awkward control system as the Game Gear one, but it plays rather well otherwise and has more stable performance. Some excellent graphical work means that the loss of colour isn't as much of an issue as you might imagine.

GAME BOY ADVANCE 2002

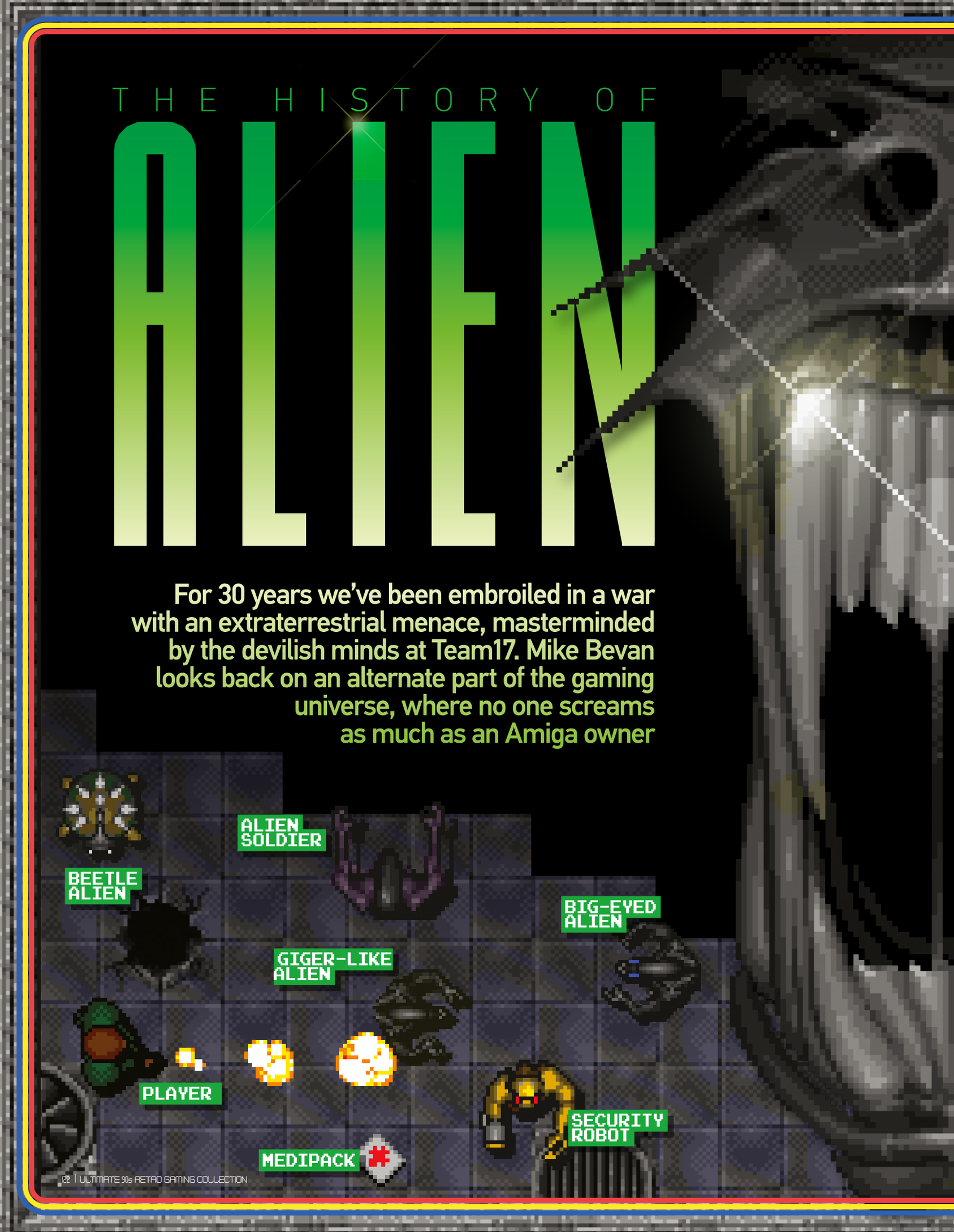
■ This is more or less a straight conversion of the Mega Drive game, but with an even smaller field of view than on the SNES. However, keeping Jink and Hellfire off the same button is a marked improvement over the original game. The retention of passwords where save data could have been implemented is baffling.

AND THE REST...

■ The original Mega Drive version of *Desert Strike* is available on PSP, as part of the *EA Replay* compilation. While it plays just fine, the sound is a bit wobbly – a common problem with Mega Drive emulation. Additionally, the Amiga version is available via emulation on Blackberry platforms.

THE HISTORY OF ALIEN

For 30 years we've been embroiled in a war with an extraterrestrial menace, masterminded by the devilish minds at Team17. Mike Bevan looks back on an alternate part of the gaming universe, where no one screams as much as an Amiga owner



BREED

If there's one thing to be learned from videogames it's that humans and aliens just don't get on. If you're going to build a space station at the fringes of colonised space, aliens are going to get in and eat everyone, leaving it to a small band of highly-trained operatives to sort out the mess – who will probably then get eaten too.

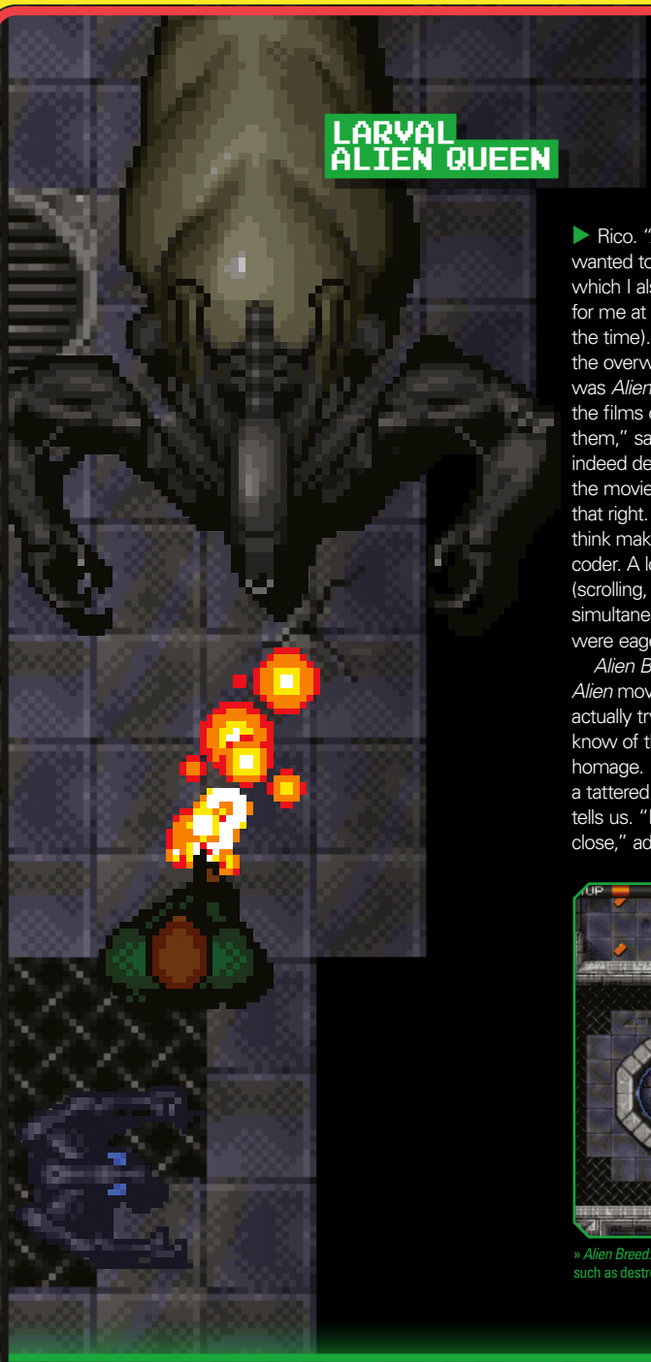
Such is the scenario in *Alien Breed*, a futuristic top-down shooter for Commodore's Amiga developed by Team17, a studio perhaps more famous as the producer of the popular *Worms* series. Released in 1991, just as the first iterations of the Amiga were coming of age as popular and affordable gaming platforms, *Alien Breed* was, for its day, the most stunning-looking 2D corridor shooter that wasn't a *Gauntlet* arcade machine. With an atmosphere reminiscent of several iconic sci-fi films, it took players into nightmarish, convoluted levels that made Hampton Court maze look like a simple stroll around the Serpentine – and that was before even having to worry about what was coming after you.

The original game, a collaboration of the talents of Amiga programmer Andreas Tadic, artist Rico Holmes, and musician Allister Brimble, was made possible by the involvement of Team17 founder Martyn Brown. For the newly-formed company, *Alien Breed* would be only its second game development project after its beat-'em-up, *Full Contact*.

"I'd been involved with Andreas, Rico and Allister at 17-Bit [an earlier Amiga demo/software company] and I'd brought and introduced the team to each other a while before," remembers Martyn. "I parted ways with 17-Bit and came back to set up Team17 in late 1990. At the time, the guys had produced a title for Codemasters (*Miami Chase*) and had *Full Contact* almost complete and *Alien Breed* (designed in the main by Rico) was about 50 per cent complete. The plan of sorts was to try and make our spin [on] popular arcade titles, since largely speaking we felt people didn't do them justice on the Amiga hardware. The main idea was to shake up two of our favourite things, *Gauntlet* and a certain movie series from 20th Century Fox."

» If it were us, we'd be straight back on that spaceship.

"I was a super geek for the Spectrum game *Laser Squad* and the C64 game *Paradroid*," confesses



▶ Rico. "*Alien Breed* was the crossover that I always wanted to play. People often compared it to *Gauntlet*, which I also loved, but was actually not an influence, for me at least (it was only available on the Atari ST at the time)." Obviously, outside of other videogames, the overwhelming influences on the upcoming title was *Alien* and its sequel *Aliens*. "Rico and I had seen the films over and over again, and were big fans of them," says Andreas. "The behaviour of the aliens was indeed designed to resemble the aliens' behaviour from the movie. We did spend quite some time on getting that right. Quite a few iterations, if memory serves. I think making *Alien Breed* was when I really became a coder. A lot of foundation was there from *Miami Chase* (scrolling, sprites, blitter etc.) and had been worked on simultaneously to the making of *Full Contact*. I think we were eager to put the tech to work."

Alien Breed was, in its own way, a love letter to the *Alien* movies and Martyn points out that Team17 did actually try to approach the filmmakers to let them know of their intentions for its forthcoming gaming homage. "We tried to get the licence from Fox and a tattered fax from them still exists somewhere," he tells us. "In a funny way, the likeness was a bit too close," adds Rico. "I say funny because in the letter

» *Alien Breed: Special Edition 92* gave you a bit more variety in missions – such as destroying whatever these big round things are.

"LOGGING INTO TERMINALS WAS INSPIRED BY ALIENS"

Andreas Tadic

of consent from 20th Century Fox the gist was that they would accept our 'look and feel' to the games we were producing as long as we didn't try and make any movies based on the franchise. At the time that was hilarious to us – 'Who'd make a movie based on a videogame?!' These days it's a different matter."

While *Gauntlet* wasn't so much of an influence on Rico as main designer, one feature that the team wanted its game to share with that coin-op was the inclusion of a co-operative multiplayer game mode. "We couldn't really do four players [like *Gauntlet*] on account of only two joystick inputs and how the Amiga's hardware sprite system worked, so two-player co-op was key," says Martyn. "There was some careful design [needed] in terms of resource sharing for sprites and how many weapons/objects could be rendered and reused, but it wasn't too much of a challenge compared to the design of the game itself," says Andreas. Another important feature of *Alien Breed* is the fact that it was designed for 1MB Amigas, requiring a memory expansion on the older Amiga 500 model. This freed up space for graphics and sound and allowed for a more polished overall game experience. "It was a bold but a really good decision," says Andreas. "A good sign of that is that sales of memory expansions for the Amiga boomed after *Alien Breed* climbed the charts."

Another impressive feature of *Alien Breed* for its time was the 'Intex Computer system', which enabled players to log into terminals where they could spend

ALIEN BREED TIMELINE

We chart the terrifying alien onslaught over the years

1991

ALIEN BREED
AMIGA

1992

ALIEN BREED: SPECIAL EDITION 92
AMIGA

1993

ALIEN BREED II: THE HORROR CONTINUES
AMIGA

1994

ALIEN BREED: TOWER ASSAULT
AMIGA

» *Alien Breed II* here showcasing why homing missiles are both fun to use and incredibly useful.

collected credits on upgraded weapons, health packs, and extra lives, check their location and mission status, and even play some 'futuristic entertainment' (a tongue-in-cheek version of *Pong*). "Logging into terminals was inspired by *Aliens* I think, and an excellent opportunity for the gameplay design," says Andreas. "I'm intensely proud of those to this day," Rico admits. "Not just the look of them, but the introduction of the concept. Every other game of the time that involved power-ups just gave you them. I liked the idea of an in-game currency that you could make choices with. It added to the replay value immensely. The only pity is that it was long before microtransactions were conceived in games and we didn't patent the idea!"

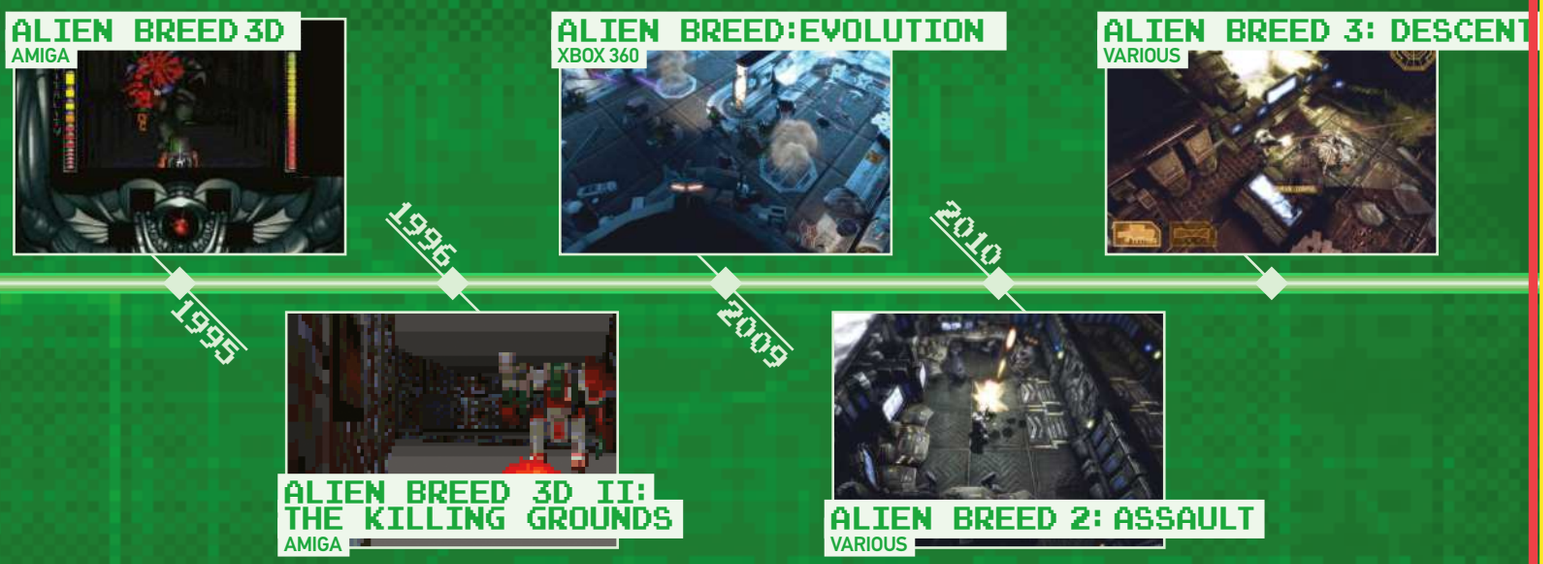
Alien Breed is also notable for its synthesised speech, with the memorably dulcet tones of the ship's computer being provided by musician Allister Brimble's mother, Lynette Reade. "My mum was trained as a professional actress at Central School Of Speech And Drama," says Allister proudly. "She was in the same class as Tony Robinson and won quite a prestigious award for student of the year there. I asked Martyn if she could give the vocals a go. I had to pitch them up a little bit but they ended up being perfect for the game."

Along with the brilliant title music track, Allister was behind the unusual sampled sound effects in the game, some of which came, as he explains, from rather unlikely domestic sources. "The alien's spawn sound

» *Alien Breed II*'s new outdoor levels relentlessly throw attack choppers at you.

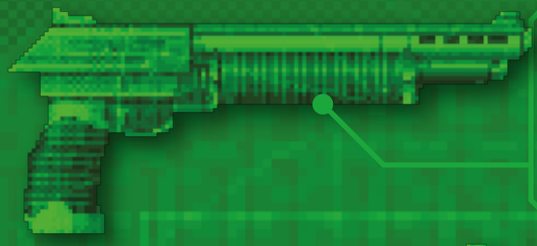
was produced by actually cracking an egg into a bowl and then lowering the pitch a little," he tells us. Even more strangely, the death screams of the aliens had an altogether far cuddlier origin. "I had just bought my first sampler, an Akai S950. The first thing I recorded as a test were my Burmese cat, Pandora's kittens. They made a tiny high pitched squeak! I could then play [it] on my keyboard at various pitches and accidentally played a chord low down on the keyboard. It sounded so alien-like that I mixed an explosion with it and used it as the alien death sound. So remember, when playing *Alien Breed* you're killing off poor defenceless little kittens (no animals were harmed however)!"

Adding to the top-notch presentation of the game was an animated introductory story sequence, taking up a whole extra floppy disc. "We got one of ▶



LOCK AND LOAD

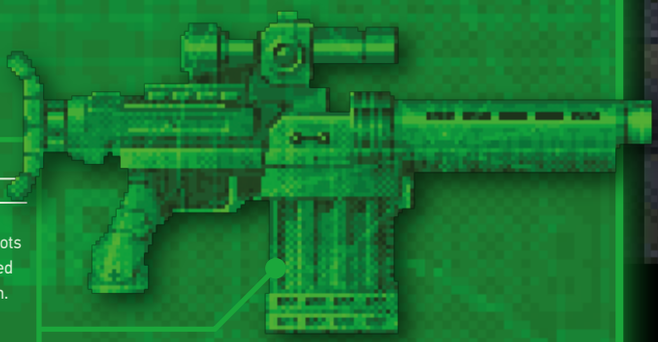
The weapons of the original Alien Breed



TWIN RAPID FIRE

2000 CR

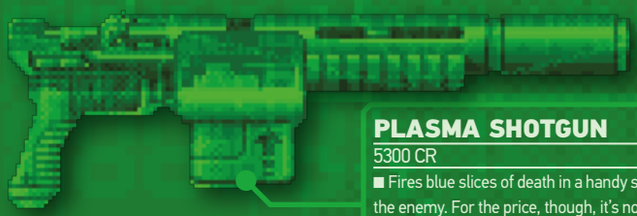
■ Upgrades your weedy starting machine gun to a heftier twin firing laser. It's unremarkable, but it'll get you through the game's initial stages.



FLAMEBOW

3100 CR

■ An iconic *Alien Breed* weapon, this beauty shoots bouncing crescent shaped lasers around the screen. Great for clearing out groups of aliens.



PLASMA SHOTGUN

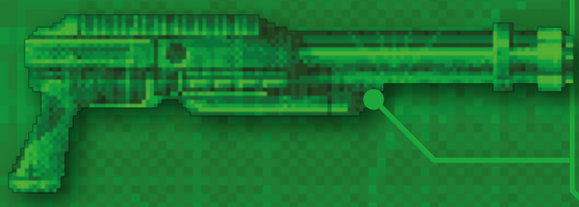
5300 CR

■ Fires blue slices of death in a handy stream towards the enemy. For the price, though, it's not that amazing, and doesn't bounce like the flamebow.

EBON FLAMETHOWER

8800 CR

■ When you really have to toast every last alien in the room to crispy charcoal, this is the weapon of choice. It's also very effective on bosses.



TRIPLE-BARREL LAUNCHER

11300 CR

■ This launcher fires unguided missiles at anything unlucky enough to get in its way, and can sometimes hit enemies hiding behind walls.

ARC LASER

18200 CR

■ The ultimate weapon in *Alien Breed* fires powerful laser beams that, like the Flamebow, bounce around the screen several times clearing out foes.

▶ the guys who were producing the best CG on the Amiga, Tobias Richter," explains Martyn, "and for me it was great to involve such talent after working in the demo side of things with 17-Bit. It just felt natural to do the story thing and it was one area I was involved with strongly whilst the guys were cracking on with the game." It wasn't all smooth sailing in the graphics department, though, as Rico explains. "We weren't rich at the time and I couldn't afford to change my monitor on the first *Alien Breed*. The blue gun on the screen only worked sporadically, so I only had a full-colour screen maybe half an hour per day. Martyn found this unsympathetically hilarious at the time."

Even when it came to shipping the game out to stores, it seems a few last-minute niggles crept in. "Although we playtested relentlessly, I remember us missing a spot where you couldn't finish the game in two-player mode," Andreas reveals. "We ended up as a gang in the Team17 warehouse patching disks with a program I made, literally overwriting a sector on every floppy. Stick an *Alien Breed* disk in the drive, press space and repeat. Like a steel press at Volvo…"

Alien Breed was well received by press and Amiga owners alike, who praised its graphics, sound and atmosphere, and recreation of a true *Aliens*-like immersive experience. "We were very happy with it, but at the time it was a case of knowing we could have done more with more time and experience," says Martyn. "To be honest, at the end of *Alien Breed* we were already talking about the next one or two games, so we moved straight onto those. I think perhaps the relevance passed us by at the time, although nice reviews, feedback and stuff was really appreciated."

As a follow-up, Team 17 produced a 'remixed' version of the game, *Alien Breed: Special Edition 92*,

» Much like the *Alien* film series it drew inspiration from, *Alien Breed* didn't shy away from showing gore.

» If our many years of gaming has taught us anything it's that fire gets the job done.

with all new levels and a number of gameplay improvements. "*Alien Breed: Special Edition 92* was made on the basis of that we could do it with a minimal effort technically," says Andreas. "We could reuse a lot of content and code and release something that people wanted, comparable to releasing a DLC today. [It was] good for us and good for the players."

"I saw an opportunity to 'make good' and reuse/rebalance what we did with *Alien Breed*," adds Martyn. "I thought we could do it reasonably quickly and make the game that perhaps *Alien Breed* should have been. Tidier, more levels, with a better story. We finished it in six weeks, given that we largely reused *Alien Breed* art and animation assets. We decided it should be a budget title because of this. It went to number one in the budget charts in the UK and stayed there for 33 weeks. I'm not sure but I think it's still a record."

The first true sequel for the franchise came a year later, in the form of *Alien Breed II: The Horror Continues.* This sequel took advantage of the updated graphics chips of newer Amiga (AGA) models starting with the Amiga 4000, and later on the Amiga 1200. "The first task was updating our technology to cater for all the new things AGA had to offer," Andreas recalls. "The game utilised 256 colours, bigger sprites and a faster blitter. Both the AGA version and [standard] ECS version were on the same disk for backwards compatibility. Other than that, the graphics were all new, and there was a revamped weapon system, shop and new aliens. Also, there were outdoor levels some other nice touches so there were quite a few bits that made it worth calling a sequel."

Despite these additions, though, for some this sequel was perhaps not quite as evocative and impressively detailed as the previous outings of the franchise. It was also punishingly difficult, even with the addition of level-skipping passwords. "I think there was a bit of pressure on the sequel, an expectancy," Martyn admits. "We produced a much slicker game but I don't think that it hit the heights of the original or the remix. We were working on two or three games at the same time with the same team and maybe it showed in terms of ideas."

But with the *Alien Breed* series still a huge marketing flagship for Team17, Martyn was keen to expand the reach of the franchise, with an ambitious 2D swan song, *Alien Breed: Tower Assault*. This final 'traditional' *Alien Breed* would see release across all Amiga formats, including the new CD32 console, along with the PC. "I wanted to sign off the 2D series in a big way and had an idea of doing a much larger story and a 'spiral' design which allowed many different routes and exploration through the game, rather than the linear level approaches of the earlier games," he explains. "I think it worked well and I was pretty happy with it. We did most of the design work in-house too whilst the guys were busy with *Superfrog*. CD32-wise, we'd been talking to Commodore and they were obviously keen to get support for it, so we span out a version for it." With over 50 levels, more than all the previous *Alien Breed* games put together, *Tower Assault* remains, in this respect, the most expansive game in the series.

By the mid-nineties, though, the traditional 2D shoot-'em-up was facing a stiff challenge from ▶

ALLISTER BRIMBLE

We talk to the man who soundtracked much of the Alien Breed saga

What inspired you when you were working on the *Alien Breed* music?
The inspiration came from a variety of sources. Parts of the melody were Rob Hubbard-inspired but I was also heavily influenced, as I still am today by the choirs from Jean-Michel Jarre and the TV Theme from *Knight Rider*, especially the staccato sections which you hear in *Alien Breed*. I was also using some new software called Soundmon 2.0 which allowed tiny sections of music to be manipulated in real time, adjusting some instruments and transposes for a short phrase of music with the change of a single digit, without having to write the new parts. This way of working led to some inventive composition at times.

How did you find working on the Amiga as a musician? Were there times you wished that you had more memory or other capabilities because of certain restrictions of the machine or the floppy disc format?
I had learnt first on the 8-bit machines where memory was limited to a few KB, so having even 50K for a track on the Amiga seemed loads at first! The memory soon disappeared, though, if you added too many samples. The key was to create really short, tight loops with no clicks on the loop point and that required a lot of work to get right. On *Alien Breed* I first wrote a 30-minute version of the tune with larger samples that came out at around 90Kb. This was too large for the game, so I ended up downsizing to ten minutes and replacing the longer samples with tiny 64 byte clarinet and choir waveforms recorded from a Kawai K1 synth. I'm pleased I did as they actually ended up being a feature of the music!

Did you play much of the *Alien Breed* games yourself as a gamer?
Yes although the Team17 games were brutally hard! I could only get past the first few levels!

Was it nice to get the chance to put some of the original *Alien Breed* music into the more recent outing for the franchise, *Alien Breed: Evolution*?
Yes when Team17 approached me I was very excited to remix the track. Being such an old tune I wasn't really sure how well it would come up but it seems to have stood the test of time well and I was able to modernise it without changing too many notes...

It was great to see your music feature prominently on *The Amiga Works* album. Are you pleased that your work on the series is so well remembered?
Yes, it was one of the first big works I created for a game and I put pretty much everything into it, as much as I could at the age of 21 anyway! Luckily it remixes well in several ways so I was able to produce three variants of it for *The Amiga Works*.

Your may be interested in hearing the tracks at amigaworks.com and allisterbrimble.bandcamp.com.

INFLUENCING ALIEN BREED

The games and films that inspired the series

ALIEN

1979

■ Ridley Scott's seminal sci-fi horror was the celluloid debut of the biomechanical designs of iconic Swiss artist HR Giger, his most famous creation being the iconic Alien itself. Giger's unique style influenced a generation of game designers, as is evident in *Alien Breed*.

PARADROID

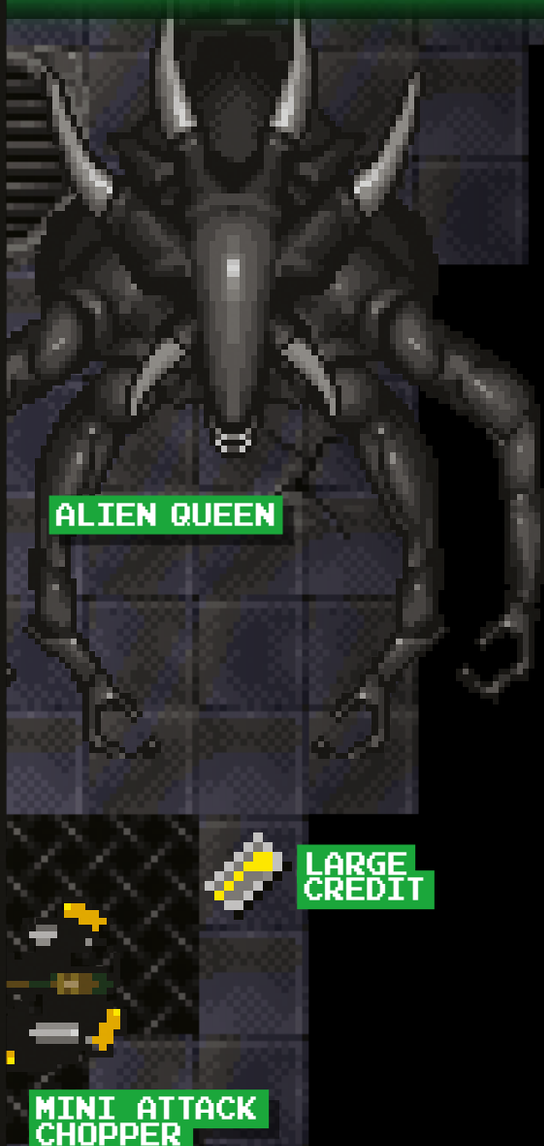
1985

■ Andrew Braybrook's classic strategy-based shoot-'em-up is definitively one of the greatest Commodore 64 games of all time. Its setting, an enormous scrolling bas-relief spaceship, was a big influence on Rico Holmes when designing *Alien Breed*'s levels.

ALIENS

1986

■ What's better than one *Alien*? A whole colony swarming with them, of course. James Cameron's stunning movie sequel mixed futuristic horror and good old-fashioned gung-ho militarism in a hugely-entertaining manner, as well as inspiring a few of *Alien Breed*'s weaponry.



▶ the all-new 'breed' of 3D games popularised by *Wolfenstein 3D* and *Doom*. The architecture of the Amiga made it difficult to emulate similar games at anything near the resolution or speed offered by the PC, unless you were some kind of genius. Step forward Andrew Clitheroe, the man behind *Alien Breed 3D*.

"I was at university in York at the time," Andrew remembers. "Everyone was marvelling over *Doom* running on the only PC we had between us, including my girlfriend of a couple of months, so I decided to try and do something similar to impress her. I threw together a demo, and ended up taking it to Team17 at her urging. They liked it enough to ask me to turn it into an *Alien Breed* game."

"Team17 was very much preoccupied with titles they were already working on at the time," Andy continues. "I was left more or less entirely to my own devices. I ended up some getting university friends, Mike Green and Charles Blessing, to help out with the art and some of the editor code, and created all the levels myself. If I recall correctly I nicked at least a couple of textures from *Doom* itself…"

While the resulting *Alien Breed 3D* was certainly one of the best commercial *Doom* clones on the Amiga, it was a noticeably different gaming experience to anything that had come before in the series, something that a few fans were keen to point out. "That's entirely fair, because they weren't," chuckles Andrew. "Nobody from the other games worked on *Alien Breed 3D*, none of the defining features, like the weapon shops, were ported across. It was to all intents and purposes a standalone title."

» *Alien Breed 3: Descent* is the last current game in the series and was released in 2010. It's unclear if any future games will appear.

> "I NICKED A COUPLE OF TEXTURES FROM DOOM"
>
> Andy Clitheroe

***Alien Breed 3D* was successful enough to spawn a sequel, *Alien Breed 3D II: The Killing Grounds*, but as Andrew admits, many Amiga users found the game a nightmare for all the wrong reasons.** "I wanted to push the boundaries even further," he tells us. "All the ideas I couldn't get into the first game, I tried to cram into the sequel. So there was a whole audio sensory, grouping and searching algorithm for the aliens. If they heard you, they would follow the sound. If they reached a point where the sound could have come from two directions, they would split up. Massive waste of time.

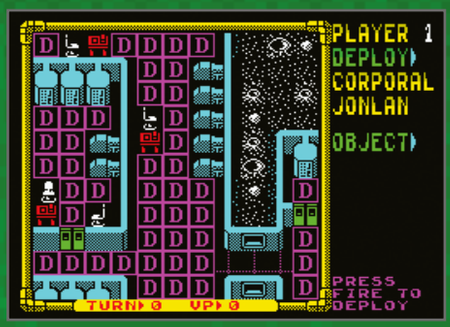
"The player didn't know it was going on and had no tools to exploit it," Andrew Continues. "I knew that if you went and stood in a particular place and fired your gun, it would cause a dangerous group of enemies to split up and search for you, but nobody else did, so the game just seemed impossibly hard. The extra AI just made it insanely punishing, I'd completely run out of ideas for levels, and the speed and fun had been crushed by all the extra tech I'd piled on. I think I had a 68060 [accelerator] card, and without that it the game ran like a dead tortoise…"

Martyn though is keen to defend Andrew's admirably ambitious efforts with *Alien Breed 3D II*. "It's safe to say it was ahead of it's time, probably by five

GAUNTLET

1985

■ Although Rico dismisses this famous coin-op title as being an inspiration for *Alien Breed*, it's impossible to play the game, especially with another player, and not see certain similarities. *Gauntlet* never gave you the chance to buy a flamethrower, though.



LASER SQUAD

1988

■ This turn-based strategy game, originally designed for Sinclair's ZX Spectrum by Julian Gollop, has the honour of being the inspiration for two great extraterrestrial-themed franchises, namely *X-Com* and *Alien Breed*. Rico cites it as one of his favourites.

MIAMI CHASE

1990

■ With this top-down Amiga racing game, programmer Andreas Tadic and artist Rico Holmes had the opportunity to master smooth, multi-directional scrolling and detailed overhead visuals a year before the duo went on to create the original *Alien Breed*.

» *Alien Breed: Impact*, released in 2010 is an updated version of *Evolution* and featured a new upgrade shop and tweaked aliens.

years," he says. "If the first 3D game was *Doom*, this was *Quake*. A fully-3D experience rather than a cleverly extruded 2D/3D one. It was right at the end of the Amiga's shelf life, unfortunately."

The death of the Amiga as a commercial platform marked a lengthy hiatus for the *Alien Breed* franchise, until it was revived with an episodic trilogy of games starting with 2009's *Alien Breed: Evolution*. "The industry changed and we took a while to adapt to new platforms and new business models," Martyn explains. "Team17 survived. We had to partner to produce new games, at least until digital distribution became a viable option. We tried various *Alien Breed* games, each getting so far down the line, but not getting enough traction to publish since the cost of publishing rose above development costs significantly. With Microsoft and Xbox live, it really inspired independent publishing again and we enjoyed a very good and close relationship with the Xbox Live team. One of their strategies was to bring episodic games to the service and we effectively trialled that with *Evolution*. The team (around 40 people, ten times as many as the original) had a real blast making the game and we're very proud of how it looked and played."

Over a quarter of a century after its conception, *Alien Breed* is still a fondly remembered series for those who grew up with the Amiga, and the series' legacy still lives on, with recent releases of the original *Alien Breed* for mobile platforms, and a compilation of *Alien Breed* and *Tower Assault* for PC/Windows. "We were lucky to have Martyn as our hub of contact," says Rico. "He had an knack for knowing who would gel as friends. It was a remarkable time, and creativity was treasured. We all got on like a house on fire, and we were all fuelled by the same energy both socially and professionally. There's little in the world better than working with your best friends."

"It's those early days I cherish," Martyn agrees. "With three people I'm still very close with these days, we produced something people consider pretty golden so we can be thankful for that. We were lucky to be around in that time and lucky to effectively work how we wanted. It's something that never left me in terms of how I want to work in the games industry and we try and to do that today, albeit with tighter production."

For *Alien Breed 3D* creator Andy Clitheroe, the involvement with the saga even led to a 'special edition' for his own family. It turns out that the 3D demo he created to impress his girlfriend at university really did the trick. "It worked…" he says. "We're married with a ten-year-old daughter now."

Alien Breed: not only scaring the pants off Amiga users, but also helping bring new life to the world. Which are both fine things, we're sure you'll agree. ✱

Super Castlevania IV

It heralded the evolution of the franchise into 16-bit and was a technical showcase for the SNES. John Szczepaniak speaks with main programmer and total director, Jun Furano – known by his real name, Masahiro Ueno

IN THE KNOW

- **» PUBLISHER:** KONAMI
- **» DEVELOPER:** KONAMI
- **» RELEASED:** 1991
- **» PLATFORM:** SNES

Masahiro Ueno – or Mitch to his friends – has been involved with a lot of amazing games. Not that you'd always know this, as he was often credited as Jun Furano. "I used 'Jun Furano' as Konami did not allow us to use real names in game credits back then," reveals Ueno. "I made up the name after a Japanese TV drama called *Kita No Kunikara*. It took place in Furano, Hokkaido, and Jun was one of the main characters." This fish-out-of-water series was very popular in Japan, and involved a father taking his two children to live in the countryside.

It was common policy in the old days not to credit developers, or to do so under a nickname. Western fans have speculated if it was to prevent headhunting – the impression being that, in Japan, with the 'job for life' culture at the time, people seldom changed jobs. "I think it was to prevent headhunting," says Ueno. "People move more often these days, but many of my old friends are still with Konami."

» The moody opening still gives us the shivers.

Unfortunately, this discrepancy with names means that websites aren't always complete. "MobyGames is missing some of the games I worked on," admits Ueno. "Such as *Track & Field II* on the NES, *Lethal Enforcers* for the Mega Drive and many more recent games." As a fresh university graduate when joining Konami, Ueno's first game was an educational title for the Famicom Disk System that was ultimately cancelled. His second game, which was his first to ship, was porting *Metal Gear* from the MSX2 to the

Famicom in just three months. Changes were made at the request of management to differentiate the two versions – this also due to the limitations of the available Mapper chips. It was still an impressive achievement, and the game sold copious amounts in America.

Ueno continued to work with the Famicom on Japan exclusive games like *Ganbare Pennant Race!* and *MADARA*. In later years, he supervised Konami classics such as *Contra III* and *Axelay*, and played an integral role in the *Lethal Enforcers* series (including as an actor in the sequel). But, his first 16-bit role was *Super Castlevania IV* – aka *Akumajo Dracula* in Japan – as the main programmer, enemy and boss programmer, as well as overall director.

Super Castlevania IV was released in October 1991 for the Super Famicom, but working out when development started requires some detective work. For the sake of clarity, hereafter all mainline *Castlevania* games will be referred to as *CV,* followed by their number. "I don't recall exactly when we started the project," ponders Ueno, thinking back. Describing his thought process, the feeling is that it could have been in early 1990, but then he has a revelation: "*CVIII* on the Famicom was developed almost in parallel with *CVIV,* by the same people behind *CV* and *CVII.* We all worked closely with the sound team – Konami had the best sound team and they really did a great job." This is fascinating for several reasons. Firstly, the main team behind *CV* has never been disclosed as the original release featured fictional names. It also means that the original NES trilogy was developed by the same core team, while Ueno's team was brought in to get to grips with the new Nintendo hardware.

CVIII was released in Japan on 22 December 1989, meaning that Ueno would have had to have started before this, possibly using only proposed design specs for the as yet unreleased Super Famicom. "You are right," he concurs.

» Curiously, statues of vampire hunter Sypha Belnades seem to stand outside Dracula's castle.

> "We started with a small R&D team, without actual dev kits. We only had a hard copy of specification documents"
>
> Masahiro Ueno

"*CVIII* was released in late 1989, so the timeline [has to] match." Ueno adds, "I think we started *CVIV* almost as soon as we got the information from Nintendo, so we probably started the development of *CVIV* in 1989. I am not too sure though. It was more than 20 years ago!"

It's important to understand the underlying context of this era. The technological jump from the Famicom to the Super Famicom (released November 1990) was absolutely massive, with more noticeable results than the jumps we see today. How did it feel being on the cutting edge? "Naturally, we were so excited to work on the new console, as we felt we'd done everything we could do on the Famicom without additional chips in the cartridge." Ueno then reveals another clue that his team must have begun long before the Super Famicom had actually been released. "We started with a small R&D team, without actual dev kits. We only had a hard copy of specification documents."

"The Super Famicom was definitely more powerful than the Famicom, especially in graphics and sound," states Ueno, "but the CPU is a bit more difficult to work with as it's more like a slightly faster 8-bit CPU with integrated bank registers," he continues, detailing the technical side of SNES development. "Unlike modern consoles, we had access to all the hardware registers and we had to figure out how to use those effectively, which I really enjoyed. But, it took us some time and experiments to find the right ways to use various tricks during actual gameplay."

CVIV was the ninth release for the series – previously, there were three mainline Famicom games, unique standalone titles for the MSX2 and arcades, two Game Boy releases, plus a Famicom spin-off featuring Dracula's son. *Castlevania* was obviously important for Konami, as Ueno concurs. "The expectations were really high, as it was already a successful franchise and now on the new 'super' hardware. Personally, I liked the original *CV* the most back then. Of course, I played them all before we finalized the direction of *CVIV*."

Ueno proudly declares, "I wanted to make *CVIV* a pure action game without any RPG elements, similar to the original *CV*." This also brings up overlap with ▶

» Mode 7 sections like this started out as experiments, and then Ueno and his team thought of how to add fun gameplay.

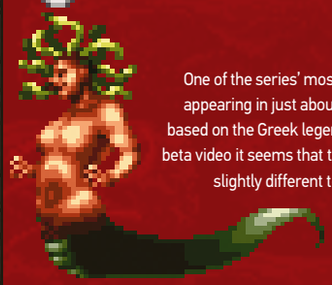
» Due to strict NOA rules, these topless statues had to be censored before the English release.

» One mudman becomes two mudmen and then four, and then they all die!

» Tread carefully – jumping on these platforms activates a trap that drops into a death pit.

Rogue's Gallery

Your guide to Super Castlevania IV's superb bosses

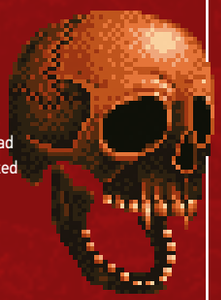


MEDUSA

One of the series' most iconic enemies – appearing in just about every game, and based on the Greek legend of Perseus. In a beta video it seems that this boss appeared slightly different to the final version.

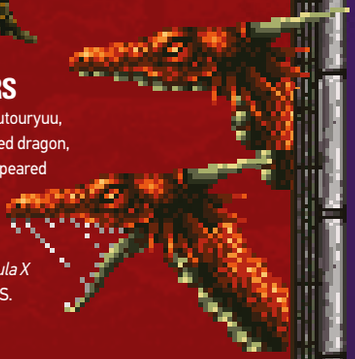
KORANOT

Known as Big Stone in the Japanese manual, the golem boss is Ueno's personal favourite. It first appeared in the *Haunted Castle* arcade game, and went on to feature regularly in the series.



PUWEYXIL

First seen in *Super Castlevania IV*. Known in Japan as Death Breath Head, the English name must be read backwards. It features a sprite-jointed tongue, impressive transparencies and real-time damage to the background.



ORPHIC VIPERS

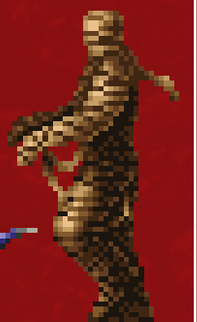
Known in Japan as soutouryuu, meaning double-headed dragon, similar bosses also appeared in the earlier *Castlevania III* and *Boku Dracula-Kun*. It made a return in *Dracula X* on PC Engine and SNES.

THE MONSTER

Although not named as such, this iconic boss is unmistakably based on the creature made by Dr Frankenstein, as featured in Mary Shelley's eponymous novel. A series regular.

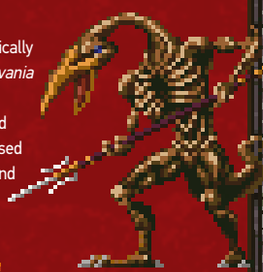
ZAPF BAT

One of the game's coolest bosses. Although giant bats have featured in just about every *Castlevania* game, only in *Castlevania IV* is one made out of possessed treasure!



AKMODAN II

Another series veteran appearing in most *CV* games, except this time he's been given a name in the US manual, reinforcing his Ancient Egyptian heritage.

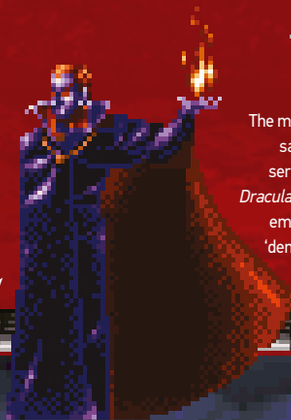


SLOGRA

A unique boss created specifically for the final section of *Castlevania IV*, and one of the toughest. Slogra resembles a zombified pterodactyl. It was later re-used for *Symphony Of The Night* and subsequent games.

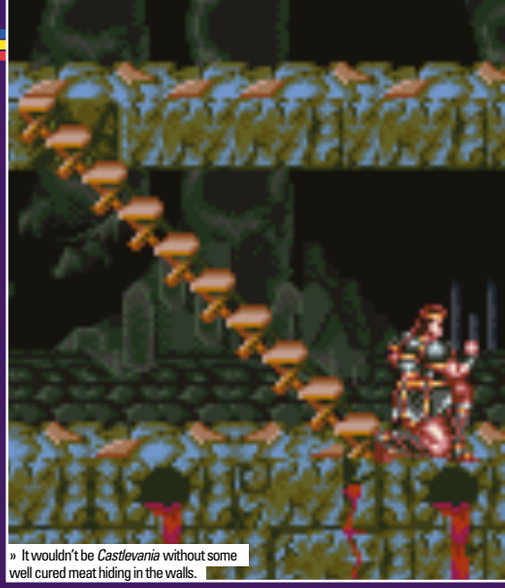
GAIBON

Another unique end boss created specifically for this release that you fight directly before Dracula. As with Slogra, Gaibon was re-used for *Symphony Of The Night* and subsequent games.



DRACULA

The main attraction. Having said that, the Japanese series name of *Akumajo Dracula* actually places more emphasis on the Count's 'demonic castle', than the vampire himself.

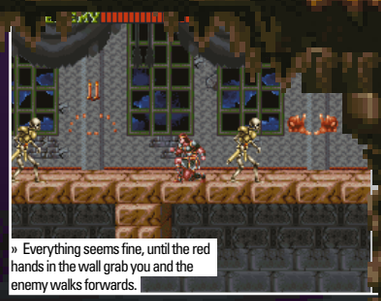


» It wouldn't be *Castlevania* without some well cured meat hiding in the walls.

▶ its direct predecessor. He continues, "*CVIII* is a great game though. If *CVIII* had [already been released] before we started *CVIV*, I would have followed that direction." The two games definitely share some DNA though, notably the twin-headed water dragon boss and a cameo appearance by *CVIII*'s Sypha Belnades (in statue form), just before entering Dracula's castle.

"Because the team was small," explains Ueno, "everybody was involved in the design. Some ideas came from creative artists and others were from programmers' experiments. The whip feature was really a big part of the game and it was experimented with and implemented by Yaipon. We drew maps on paper but I think we changed a lot as we iterated the game." Yaipon, also known as Yaiman, was of course Mitsuru Yaida, who programmed the player's character. He left Konami along with others to form Treasure, later programming *Gunstar Heroes*.

Ueno, meanwhile, was in charge of boss programming, so we asked about their design and his overall favourite. "I came up with rough boss ideas first and then [additional] programmers came up with more detailed patterns as they implemented. We wanted to make earlier bosses relatively easy so that the players could figure out weak points and effective weapons without retrying too many times. For some bosses and traps we



» Everything seems fine, until the red hands in the wall grab you and the enemy walks forwards.

decided to use Mode 7 first, then came up with ideas. I like the golem boss, simply because it uses Mode 7."

There's debate regarding whether *CVIV* is a remake of the original, which is controversial since it contains so many revolutionary elements – a better example of a remake would be *Akumajo Dracula* on the X68000 computer. But what does *CVIV*'s director think? "I consider *CVIV* as a remake of the original *CV* to some extent." But what about all the new features, like being able to leap on and off of stairs freely? "The original *CV* is a great game, but I felt it was a bit too difficult and many players got frustrated," continues Ueno. "The changes in the 'stair behaviour' was to give more control to the players and reduce the frustration. The new whip system was to introduce some new gameplay that had not been possible on the Famicom. We had freedom to make many changes, but we wanted to keep the game aligned with the original *CV*."

It wasn't always easy though, as Ueno tells us, "Like many other games, we had a long crunch time. Making a game on new hardware requires so much effort, so the crunch time lasted almost six months. But, we were so excited to work on the game. When the game was completed, as is always the case, I had mixed feelings. I was very satisfied with the fact we finally completed the game, but I also wanted more time to polish it."

Ueno is a bit unfair on himself though. Konami released a promotional video from an early build and, when you compare this early footage to the final version, it's astounding how much polish the team managed to add. "I was not aware of this promotion video, but it seems the footage was captured from an early build," admits Ueno, when given the YouTube link. We ask if anything was removed from this build due to memory restrictions, citing a snake-like boss which is different to the final Medusa. "I don't recall any severe memory restrictions back then, so I think these changes were made to improve gameplay."

CVIV is a phenomenal showcase of programming skill and design talent. Reflecting on this, we asked what Ueno was most proud of. "In addition to the new gameplay, I wanted to make the environment more interactive and lively. The music and sound effects really contributed to make the game's atmosphere spooky and real. So, I am proud of the atmosphere we created." And, would he change anything if he had a time machine? "I would probably add more branches to give the players a sense of exploration as found in other *Castlevania* games."

> "Everybody was involved in the design. Some ideas came from creative artists and others were from programmers' experiments"
>
> Masahiro Ueno

While the fantastic *Indiana Jones*-style whip swinging wasn't resurrected for later instalments, *CVIV* still redefined a template that influenced the series for years to come, notably through several unique enemies which featured in *Symphony Of The Night*. What about the other 16-bit console releases on PC Engine and Mega Drive? "I remember I gave some feedback to the Mega Drive team, as the lead and I worked on the same projects before. I only had a little interaction with the PC Engine team as they were in a different group," admits Ueno. "Both games are great, and [the] PC Engine version brought the game to the next level."

DEVELOPER HIGHLIGHTS

METAL GEAR
SYSTEM: FAMICOM
YEAR: 1987

MADARA II
(PICTURED)
SYSTEM: SUPER FAMICOM
YEAR: 1993

LOST IN BLUE
SYSTEM: DS
YEAR: 2005

» Masahiro 'Mitch' Ueno – programming legend and all-round cool guy.

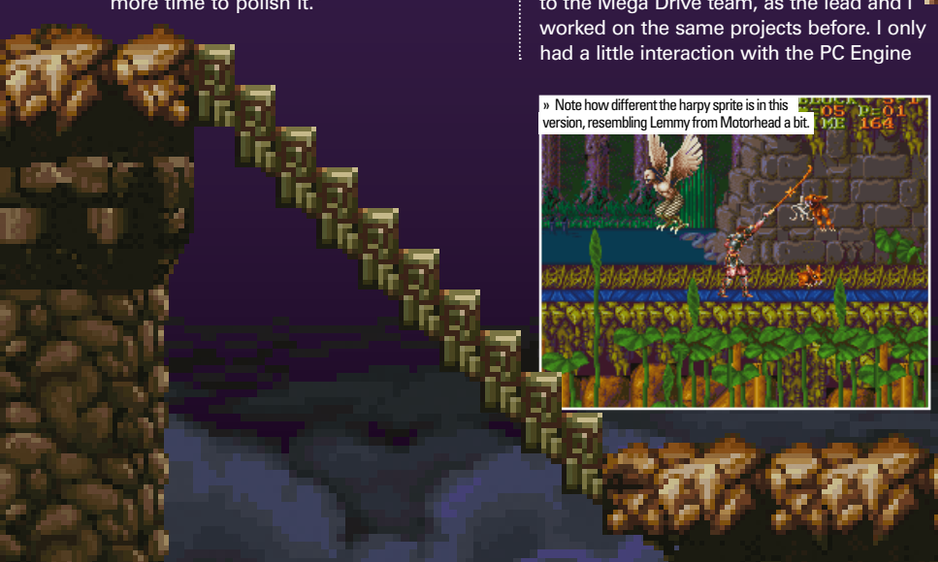
» Despite swinging being one of the best things about *CVIV*, it was strangely absent in future 2D instalments.

In addition to its own lineage, *CVIV* influenced other developers, such as C-Lab with *Rusty* for PC-98 and DOS computers. In this case it was almost a direct copy, right down to the whip swinging. "No, I am not aware of this game," declares Ueno. What's interesting about *Rusty* is that it was released in July 1993, predating *Dracula X* on PCE by over three months. *Rusty* also featured a screen-filling 'item crush' attack, which first appeared in an official *Castlevania* game with *Dracula X*. According to a detailed analysis on VGMuseum there are about 16 major similarities with the later released *Dracula X*, implying that the influence went both ways.

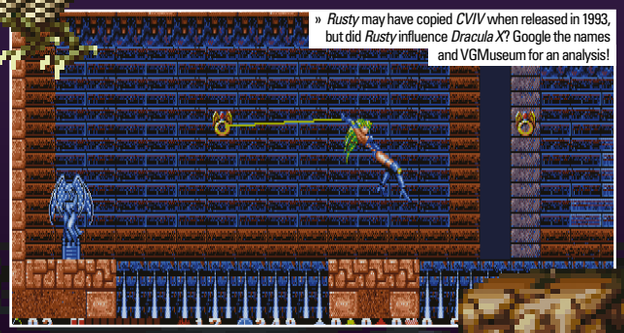
In the years following *CVIV*, Ueno eventually moved to Konami's US branch, heading up games like *Project Overkill* for PSone. Looking over the list provided, Ueno has worked on more than 60 games over the last 25 years, including as a producer on *Lost In Blue*, the *Frogger* series, *TMNT* and various *Sims* games while at EA. He's an unsung hero in an industry that favours anonymity.

Before parting company, we asked if he knew why *Contra III* was ported to GBA but not *CVIV*, and if he'd followed the release of *CVIV* on the Virtual Console. "I was not a part of porting discussions so I don't know," says Ueno regrettably. "I do have *CVIV* on my Wii though!" And with that, join him in the Director's Commentary section as he talks us through the various stages... ✱

Special thanks to *Castlevania* expert Kurt Kalata for his help with this feature.



» Note how different the harpy sprite is in this version, resembling Lemmy from Motorhead a bit.



» *Rusty* may have copied *CVIV* when released in 1993, but did *Rusty* influence *Dracula X*? Google the names and VGMuseum for an analysis!

Super Castlevania IV The Director's Commentary

Masahiro Ueno gives us the lowdown on Super Castlevania IV's creepy castle

STAGE 3

Although there are no branching paths in *Super Castlevania*, we tried to make every stage different. There are four sections in this stage: you start outside, enter the caverns, climb a waterfall and finally, enter the moat area.

STAGE 4

This series of stages nicely shows how powerful the new hardware was: boss transparencies and jointed sprites, plus Mode 7 for the rotating room, spinning bridge, and final golem boss. I think it shows *Super Castlevania* at its best.

STAGE 5

This is a short stage and there's no boss at the end. Also, the timer has been reduced, because we wanted to increase the feeling of rushing forward as players finally entered Dracula's castle. Now it really begins!

STAGE 2

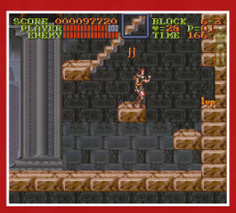
Konami released a promotional video from early development. If you compare it to the final release, you can see how we polished the river section by adding more background details and improving the transparency effects. We also redid the Medusa boss.

STAGE 1

Some names were changed during translation into English. In the Japanese original, the flying horse heads were called 'Uma no Namakubi', loosely meaning 'freshly severed horse head'. In the English release it was changed to Mr Hed.

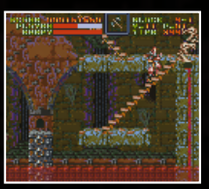
STAGE 6

You only see one swinging chandelier at a time because Mode 7 only rotates a single large background layer. If you're stuck on the boss check the wall before the steps, we hid a 1UP. Also, did you find the crying man and his dog?



STAGE 7

To keep players interested we continued to add new things to later stages. Here you will encounter the moving book platforms, and also two unique regular enemies: a giant centipede and a carpet monster that pushes you into spikes.

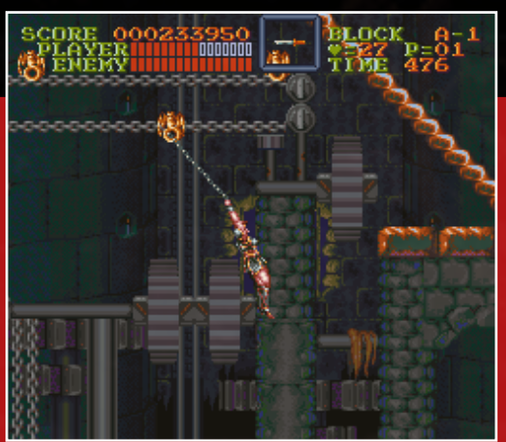


STAGE 8

I've been told players ask about the blood changing from red to green. I worked on both Japanese and English versions, so yes, I am aware of the changes. It's not serious – we were simply asked to change the colour palette.

STAGE 9

Always keep an eye out for any whip hooks high up. There's one area where you need to swing across to reach some power-ups. If you fall, you'll notice we placead the hooks slightly too high to reach from the ground.



STAGE 10A

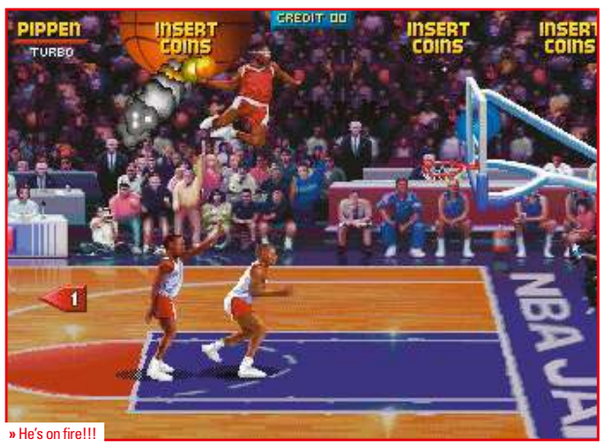
It would not be a proper *Castlevania* game without a clock tower and spinning gears. The Super Famicom allowed smoother animation for the cogs turning. Using your whip to hang from moving chains also allowed for new styles of gameplay.

STAGE 10B

I don't think many players discovered this at the time, but there's a secret area just before the final staircase to Dracula. Today with the internet, I think players have found all the secrets we added – or have you?

NBA JAM

It brought the thrills of the all-star NBA basketball league to gamers and earned millions of dollars for arcade owners. Mike Bevan gets the low-down on the hugely successful sports game from designer Mark Turmell. Boomshakalaka!



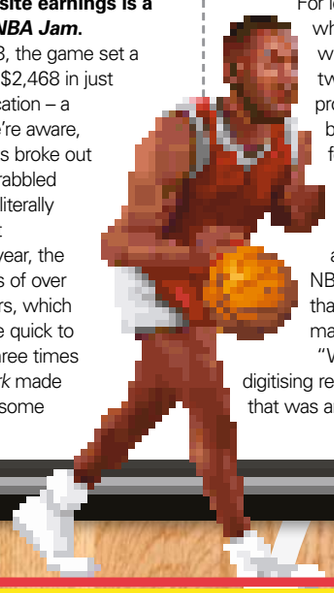
» He's on fire!!!

» Mark Turmell's most famous creation prior to *NBA Jam* was the superb *Smash TV*.

Here's a fun question for you… what are the biggest-earning arcade games of all time? *Pac-Man*? *Space Invaders*? *Donkey Kong*? *Street Fighter II*? Well, they'd all certainly be up there at the top in terms of units sold, but surprisingly, one of the most successful ever coin-ops in terms of actual on-site earnings is a sports-themed title, *NBA Jam*.

On its release in 1993, the game set a new record by grossing $2,468 in just one week at a single location – a record that, as far as we're aware, remains unbroken. Fights broke out in arcades as players scrabbled to play, and cash-boxes literally couldn't be emptied fast enough. Within its first year, the game had earned profits of over a billion dollars in quarters, which journos at the time were quick to point out was roughly three times as much as *Jurassic Park* made at cinemas. Now that's some serious moolah…

Aside from the all-important licence with its digitised likenesses of well-known players, one of the major draws of *NBA Jam* was the outright over-the-top craziness of its play mechanics: gravity-defying dunks with characters jumping ten feet in the air lobbing balls into fiery basketball hoops, and buzzer-beating last-minute three-point lobs.



For lead-designer Mark Turmell, who had previously partnered with Eugene Jarvis on the hit twin-stick shooter *Smash TV*, the project was a chance to realise a boyhood ambition in videogame form. "When I started on the VCS business in the early days, my dream was to own an NBA franchise," Mark explains. "I've always been a huge fan of the NBA and professional sports, and that was my first opportunity to make a sports game.

"We were really excited about digitising real-life characters; we thought that was an interesting technical advantage

» Can you spot Mark's own personal secret character?

» Portland are ahead against the Bulls in overtime.

» Everyone always wants to play as the Chicago Bulls.

IN THE KNOW

» **PUBLISHER:** MIDWAY GAMES

» **DEVELOPER:** MIDWAY GAMES

» **RELEASED:** 1993

» **PLATFORM:** ARCADE (ORIGINAL), VARIOUS HOME SYSTEMS

that we could have, which is why *Mortal Kombat* and *NBA Jam* came about. The NBA was a natural fit for digitising: it had different characters, real-life personalities… it was initially driven by what kind of product would be able to take advantage of this tack."

Although Midway had already released an arcade basketball game called *Arch Rivals*, *NBA Jam* was to become a totally different beast. "I probably only played *Arch Rivals* one or twice," Mark admits. "Although it was a horizontal basketball game, I never really got into the style of graphics: I'm not a big fan of that kind of cartoony look…"

A more direct influence was another Midway title by *Joust* creator John Newcomer, who also worked on the game. "I had finished *Super High Impact Football* with Ed Boon, which was a very high-earning sport game in the arcades," John tells us. "Ed wanted to do *Mortal Kombat* and Mark was looking to start a team to take the *High Impact* formula to the next step with basketball. Mark was sold that the game should be two-on-two so the playfield would not be cluttered."

» The half-time interlude features real-life NBA match footage.

> The brilliant inspiration that mark and his team added was the 'on fire' rule
>
> John Newcomer

NBA TANKS

One of *NBA Jam*'s many secrets is the hidden *Battlezone*-style tank game that could be activated on early versions of the game. "We were intrigued with 3D and Atari had that tank game with the little periscope," says Mark, "and we were just geeks trying to learn the technology. One of the programmers, Shawn Liptak, worked on this tank game that allowed you to shoot bullets at tanks on the horizon. The way he implemented it did not require you to pay any money, so people could walk up in the arcade and hit the buttons and move the joystick in the right order and it would trigger this little tank game. When the word spread, we had a lot of operators and distributors calling Midway, really upset that we had provided this free-play experience… I still have one of the letters which is really funny saying 'your programmers are out of control.' Of course in the meantime the game is still making more money than any game in history…"

"We started out with three-on-three and we had the complication of pressing the pass button and deciding who the pass would go to," Mark reveals. "We really wanted to make it simple to pick up and play, which was actually a lesson I learned from Eugene, and when you throw in too many buttons you end up in trouble…"

Along with the simple-to-learn but subtly deep playability, John agrees that the supercharged, physics-defying nature of the gameplay was a huge benefit. "Mark did a great job making this franchise fun," he says. "He took the arcade game approach rather than the 'simulation' approach, where the dunks are superhuman and the guys make those shots when they're needed. You wish in games like this that you could devote even more memory to crazy dunks and off-balance circus shots. The brilliant inspiration that Mark and his team added was the 'on fire' rule. This made the playing strategy very clear and gave an exclamation point visually when you see a blazing ball and net in embers."

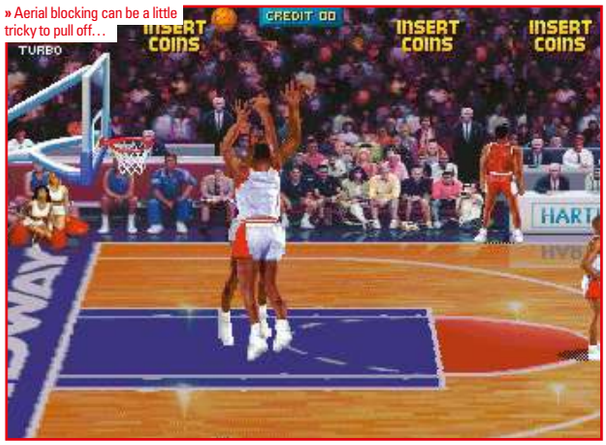
Ah yes… the notorious 'on fire' feature of *NBA Jam*. Scoring consecutive baskets causes the super-energetic commentator to yell "He's heating up!" Getting three hoops in a row gives your character superhero-like speed and pyrotechnically charged shot accuracy, as the famous expression "He's on fire!" rings across the basketball court.

"That was an idea that I came up with for the game mechanics itself. We felt the game needed another layer of pizzazz and interest," says Mark. "We had hired a guy to do the play-by-play [commentary] called Tim ▶

▶ Kitzrow, and Tim would just ad-lib stuff like 'Boomshakalaka!' and 'He's on fire!'"

As for the players themselves, the team first looked to local talent. "We grabbed a bunch of local college kids," says Mark. "I literally started driving around playgrounds in Chicago, DePaul University and the YMCA and started talking to people. We rented a space with a basketball hoop and started just going through recording move after move, we got up on a ladder and tried to simulate the perspective, and we went in to hand-touch up and strip out backgrounds from the frames. Then I would go through all these moves and decide what to implement." The heads of the digitised amateurs were then removed and those of NBA players grafted onto their bodies. "It became obvious we had to apply a scale factor to each head and I was toying around with it and ended up making the heads around ten per cent larger so you could recognise what the character was," Mark continues. "It wasn't that I set out to make a game that was over-the-top or exaggerated, I just did a dunk and thought 'that's cool,' then had [the character] jumping a couple of feet higher and went 'well that's cooler…' I kept working; dunk after dunk, just trying to make it look interesting, and that then became the feeling for the game."

Mark reveals how one of the local players, Stephen Howard, went on to actually play in the NBA. "He's now a motivational speaker and he often talks about how he became involved in that project, and how he's proud of all those moves he did for *NBA Jam*!" There were, however, a few notable star omissions. "Michael Jordan was actually in the game when we tested it in Chicago, but we had to drop him because he left the NBA. But after the game shipped I got a contacted by a distributor in Seattle, who said 'Hey, I just delivered the game to Gary Payton's house, he wants to be in the game, and he'll pay money for you to add him!' So I added Gary to a special version of the game and sent EPROMs out to the distributor to plug into their various machines. Then I got contacted by Ken Griffey Jr, the [Seattle-based] baseball player, saying he wanted to be in the game too. Shortly after, Michael Jordan contacted me saying he wanted to be in it too. Even though he'd pulled out originally, he wanted his own special version!"



» Aerial blocking can be a little tricky to pull off…

> I then had [the character] jumping a couple of feet higher and went 'well that's cooler'
> Mark Turmell

» Early versions of the game had secret playable characters from *Mortal Kombat*. Here's Raiden in action…

DEVELOPER HIGHLIGHTS

SNEAKERS
SYSTEM: APPLE II
YEAR: 1980

SMASH TV
(PICTURED)
SYSTEM: ARCADE
YEAR: 1990

BUBBLE SAFARI
SYSTEM: iOS
YEAR: 2012

Strangely for such a massive money-spinner, even the NBA licence was at one point no certainty. "When we first reached out to the NBA and asked if we might be able to put their logo on the side of a cabinet, they said 'absolutely not,' " Mark says. "All of the arcades in New York at the time had the image of being seedy, kind of underground strip-clubs or drug hang-outs, and they didn't want their logo associated with that, so we actually had to create a video that presented what a 'family entertainment' centre looked like today – bowling alleys and arcades that were nice and in the suburbs. We had to educate them as to where their logo was going… They eventually agreed to the licence and I think what happened was that it was like wildfire. We not only had a successful product but to this day I meet people that say they became fans of the NBA because of this product; there was a whole new category of fan-base that grew up because of the videogame."

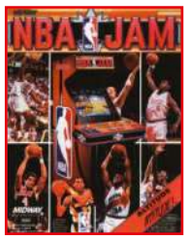
Midway's agreement with the NBA was a surprisingly good deal. "We paid them a royalty for units that were sold, something in the order of $25 a cabinet," Mark reveals. "They made their money on the back-end on consumer products; Williams had a deal with Acclaim to transfer all of our coin-op products like *Mortal Kombat* and *NBA Jam* over to the consoles, so they got a piece of that action as well." The game's popularity wasn't limited to just fans of arcades, and their rapidly profiteering owners. "Shaq O'Neal bought two machines when the game came out," Mark tells us, "one for his home, and the other one he actually travelled with on the road; he would wheel it up to his hotel room and the players would play *NBA Jam* on their road trips, so it became a sort of 'insider' game for the NBA – all the players were playing it and wanted to be in it. And we did a sequel, *NBA Tournament Edition*, that added more players and so it really sort of spiralled out of control…"

One aspect of the game that didn't please arcade operators, or indeed the NBA, was the multitude of hidden 'Easter eggs' in the game, including secret *Mortal Kombat* characters, stat-boosted 'developer' characters and even a free-to-play hidden *Battlezone*-style shoot-'em-up. Later versions of the game patched out many of these quirks, but some remain shrouded in mystery even today. "With *NBA Jam* we did a screenshot of a cheerleader dunking the basketball and it showed up on the cover of *GamePro*

magazine," Mark recalls, "and everybody of course wanted to know the code, because it was also well known that the cheerleaders were *Playboy* bunnies – we'd actually contacted *Playboy* and said we'd wanted models and they sent over some girls! When the word got out, people were looking for their initials and secret codes… We had one girl, Kerri Hoskins, who went on to be Sonya Blade in the *Mortal Kombat* series, who started getting phone calls from kids at home because we'd published her name… A lot of these secret PIN numbers were based on birthdays, so MJT [Mark's secret character] is 322 because my birthday is March 22nd. So a lot of these kids were looking for birthdays because they assumed it was the PIN number for these girls."

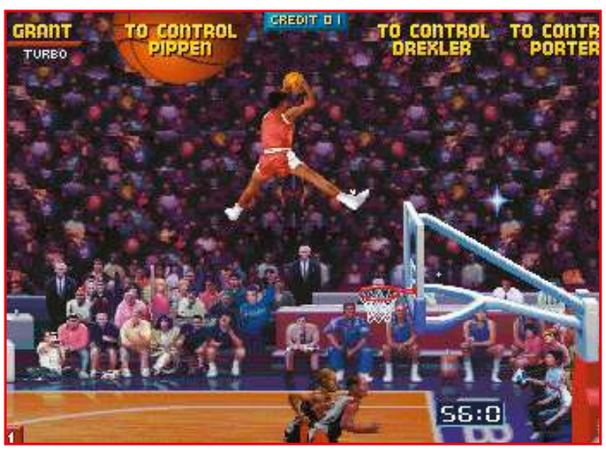
On reflection, Mark declares a great deal of satisfaction with *NBA Jam*'s popularity and quarter-wrenching gameplay which so thrillingly recreated a sport he so clearly loves. Asked why he thinks it was so spectacularly successful, he replies: "I guess it was the first arcade game to actually feature these licensed characters. The sport was really blowing up; the NBA had all these superstar players like Shaquille O'Neal, Scottie Pippen and Dennis Rodman, and for the first time you could actually access them in the arcade. That certainly brought in some of the fan base, you know for that first quarter. But as with anything in the videogame business, if you don't have great gameplay you don't get that second quarter, you don't get any additional coin drop. So from my standpoint that question is easily answered purely based on the great gameplay. You need to hook people, you need to make people feel like they are good at the game, and that game did an excellent job." ✱

Thanks to Paul Drury for his original interview with Mark.



» Strong promotion in arcades helped *NBA Jam* become a smash hit for Midway.

» Scottie Pippen re-entering the Earth's atmosphere for a dunk…



EXTREME SPORTS GAMING

More over-the-top sports games

ROCKET BALL (1985)

■ Inspired by the cult movie *Rollerball*, this Commodore 64 exclusive was a rather memorably exciting little game when you consider it was based on the completely fictional sport of roller skating round in circles while punching your opponents in the face… It remains a fast-paced game that, like many other sports titles, really comes alive when played against a human opponent.

CALIFORNIA GAMES (1987)

■ Although there's an argument for *Horace Goes Skiing* as the first extreme sports computer game, this instalment of Epyx's *Games* series was the first to feature the likes of surfing, skateboarding and BMX bundled into a single well-presented package. It's received numerous ports over the years, but we personally love the Master System and Lynx versions.

SPEEDBALL 2: BRUTAL DELUXE (1990)

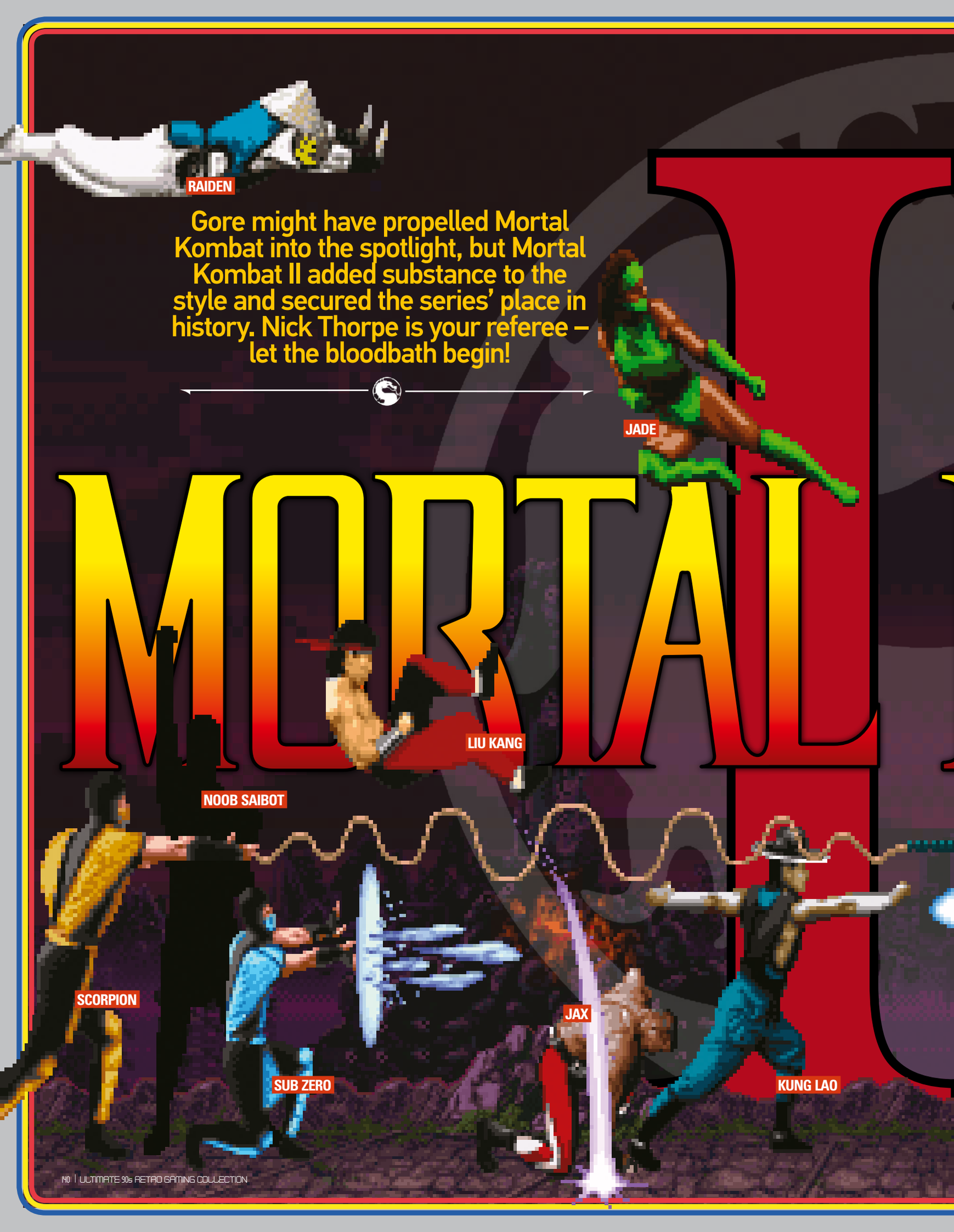
■ The Bitmap Brothers' famous cyberpunk sports sequel is one of the most celebrated and biggest-selling games of the 16-bit era, and deservedly so. It's fast, good-looking, violently silly, and above all a whole lot of fun, particularly with a handful of best mates.

NFL BLITZ (1997)

■ Applying the supercharged gameplay that had made *NBA Jam* such a smash, Mark Turmell's second sports title for Midway captured the thrills and spills of the NFL with a new 3D engine, focusing on furious tackles and near-impossible catches and touchdowns. While not quite as polished as *NBA Jam*, it remains an excellent arcade translation of the popular sport.

JET SET RADIO (2000)

■ The popularity of skateboarding games may have been started by Activision's *Tony Hawk's* franchise, but this gorgeous cel-shaded offering from Smilebit, originally released on Sega's Dreamcast console, is surely the most bizarre, inventive and visually creative of all. It received a superb sequel in 2002 and was recently converted to various digital services, so there's no excuse for not playing it.



Gore might have propelled Mortal Kombat into the spotlight, but Mortal Kombat II added substance to the style and secured the series' place in history. Nick Thorpe is your referee – let the bloodbath begin!

MORTAL

II KOMBAT

It's been said that there's no such thing as bad publicity, and the original *Mortal Kombat* is all the evidence you need to prove that. The gory fighter was a big deal in arcades thanks to its digitised fighters and brutal Fatality finishing moves, and it launched on home consoles right at the peak of the videogame violence hysteria. This made it a focal point of the US Senate hearings on the subject, increasing the game's notoriety and its desirability, propelling it to multi-million sales.

You'd think that a sequel was surely inevitable after that kind of success, and in the middle of a fighting game boom. However, the team at Midway hadn't entertained the prospect of a sequel and was actually dreaming up a *Star Wars* game when their general manager told them that a new *Mortal Kombat* was needed. The team went for the simplest approach to a sequel – a bigger and better take on the original, with more of the things players loved and all of the ideas that didn't make the first game.

Mortal Kombat II's story sees Earth's greatest warriors lured to Outworld, following Liu Kang's successful defence of Earth from invasion in the previous tournament. The man behind the plot is Outworld emperor Shao Khan, who was furious at the failure of his underling Shang Tsung to conquer Earth, and he's the new man to beat. Of course, to get ▶

SMOKE

» *MK II* increased the gore significantly – buckets of blood were spilled after practically every move.

» Does any fighter pass the acid test in the Dead Pool? No, they do not.

SHAO KAHN

MILEENA

REPTILE

KITANA

KINTARO

BARAKA

SHANG TSUNG

EXCELLENT EXECUTIONS

With over twice as many fatalities as the first game, Mortal Kombat II features some spectacular deaths...

GORE RATING

DRAGON TRANSFORMATION
LIU KANG

■ After having the worst fatality in the original, Liu Kang steps up his game by literally transforming into a mythical being and eating his opponent.

TORSO TEAR
JOHNNY CAGE

■ Is Johnny Cage hugging his opponent? Nope, far from it – he's actually forcefully grabbing them by the torso and making a clean break. Good job, Johnny!

DEEP FREEZE
SUB ZERO

■ Have you ever seen someone smash something that has been frozen in liquid nitrogen? This Fatality is kind of like that, but with a frosty ninja punching someone.

KISS OF DEATH
KITANA

■ One fatal kiss goodbye from Shao Khan's assassin will make you swell with pride, immediately before you literally swell up and explode in true gory fashion.

HAT SPLIT
KUNG LAO

■ Kung Lao takes the term 'splitting headache' to a new level. One swift slice bisects the opponent clean down the middle, in one of the game's most gruesome deaths.

DECAP-A-SNACK
REPTILE

■ Our reptilian friend's big long tongue is strong, like a chameleon. So strong, in fact, that it can pull a human head clean off for him to eat in one bite. Yummy!

» Shang Tsung was demoted from final boss to regular character, but retained his shape-shifting powers.

» New characters integrated seamlessly into the cast, thanks to their strong designs.

▶ to him you need to make it through his four-armed guard Kintaro. Shang Tsung, having been given a stay of execution, is relegated from final boss status to a member of the main cast, and the hidden character Reptile joins him on the character select screen. Liu Kang, Scorpion, Sub Zero, Johnny Cage and Raiden are all back to do battle too, but Sonya Blade and Kano from the first game have been captured and relegated to background dressing. However, newcomers take their place – female ninjas Mileena and Kitana, military man Jax, the hat-throwing Kung Lao and bladed freak Baraka.

Mortal Kombat II features the same one-on-one fighting gameplay as its predecessor, using the same five button set-up, with high and low punches and kicks plus a dedicated block button. As in the first game, characters have the same basic speed and strength, and are largely differentiated by the special moves that they possess. All of the old hands were given new tricks – Liu Kang gained a bicycle kick and the ability to perform low fireballs, while Sub Zero could freeze the ground to make his opponent lose their footing. The newcomers brought some, unique abilities to the brawls too, like Reptile's invisibility and Baraka's trapping attack.

However, the first game's most important moves were the Fatalities, performed after the fight on a defeated opponent. These gory moves had been the most controversial part of the original game, and the sequel doubled down on them – every character now had two, and they were typically even more gruesome than before. The original game also featured a famous universal fatality in The Pit, where players could send opponents tumbling into a pit of spikes – but the new game had three. As well as The Pit II, players could impale their opponents on the ceiling spikes of the Kombat Tomb and melt them in the acid of the Dead Pool. What's more, Friendship and Babality moves allowed you to add humour to the bout, as well as ramming home the point that you handicapped yourself by only using kicks.

Another thing that players loved about the first game was the hidden character Reptile, so Midway really ramped up the secrets for the sequel. Three different hidden fighters were introduced, each hinted at throughout gameplay. Smoke, a grey ninja, fought with Scorpion's moves and moved incredibly quickly. Noob Saibot, a pitch black ninja named after creators Ed Boon and John Tobias, mixed moves from the other ninjas. Jade, a green-clad female fighter, used Kitana's moves and was fully immune to projectiles. That

SOUL STEALER
SHANG TSUNG

■ How does the ancient wizard stay in high spirits and retain his youthful viasage? Well, easy: by stealing the very life force of his victims, of course!

DISARMED
JAX

■ Jax dismembers his opponent with one swift pull, rendering them completely 'armless. (Nick, your P45 is with HR – Darran.)

FAST FOOD
MILEENA

■ Mileena's never been much of a picky eater – she can pretty much devour a human whole in one go, before spitting out the skeletal remains. Nasty.

A SHOCKING CONCLUSION
RAIDEN

■ Raiden delivers what appears to be quite an amusing electric tickle, leading to the untimely explosion of his opponent. Oops.

SKEWERED
BARAKA

■ With both of his ridiculously lengthy blades protruding from his arms, Baraka hoists his opponent in the air and doesn't let up until they slide right down.

TOASTY!
SCORPION

■ We like the fact that Scorpion's new Fatality makes great use of his iconic spear weapon, but we've got to stick with the classic one here – it's flawless!

» Secret fighters appeared in Goro's Lair, bolstering the myth that they'd been intended for the first game.

» If you could defeat your opponent without punches, you could humiliate them with a Friendship.

wasn't all – to keep players guessing, some mischievous misdirection was employed. The machine's operator settings falsely audited for 'Kano Transformations' in an attempt to trick players into believing that Shang Tsung could perform them.

All of these additions contributed to the popularity of *Mortal Kombat II*, but what really secured the game's long-term popularity was an improved fighting system – fatalities are all well and good, but the fighting that leads to them has to be satisfying too. 'Juggling' enemies by hitting them in mid-air was still possible as in the first game, and it became easier to set up such instances but harder to keep the opponent aloft. The uppercut attack was made a bit more useful with an extended hit box. The new moves for existing characters greatly diversified tactical options, too – before, it was possible to avoid Liu Kang's fireballs simply by ducking, but in *Mortal Kombat II* he could aim low at a crouching opponent or even fire mid-jump. Where *Mortal Kombat* had got by on its gore, *Mortal Kombat II* was considered to be in legitimate competition with *Street Fighter.*

The other thing that helped the fighting to feel so much smoother than before was the more fluid animation found in the sequel, which accompanied a set of varied backgrounds – a welcome side effect of the new setting. Sound was also improved considerably between games, with more memorable music and a higher quality sound chip.

However, the best bit of all was that home players got to share in the fun. Every major format got a conversion of *Mortal Kombat II*, and while the 8-bit console versions were very cut down, just about every conversion felt like *Mortal Kombat II* and was amongst the best fighting games on its platform. In fact, the popularity of the game was such that when Acclaim didn't get the home conversion rights for *Mortal Kombat 3*, the publisher felt confident enough to put out a version of the second game on the PlayStation and Saturn to compete with it.

It's fair to say that *Mortal Kombat II* was long considered the high point of the series, and for many it still is. Not only did the game inspire the very good spin-off beat-'em-up *Mortal Kombat: Shaolin Monks*, it served as the biggest influence on the series' 2011 reboot. While the fighting mechanics might have improved over the years, *Mortal Kombat II* is irreplaceable as the point at which the series developed an identity beyond, "That gory brawler." *Mortal Kombat II* features the series' trademark sense of humour, iconic characters and the capability to host memorable fights. That's why the developers still look back to it as a reference, and that's why we still play it today. *

» All-new stage fatalities gave players more options to murder their foes.

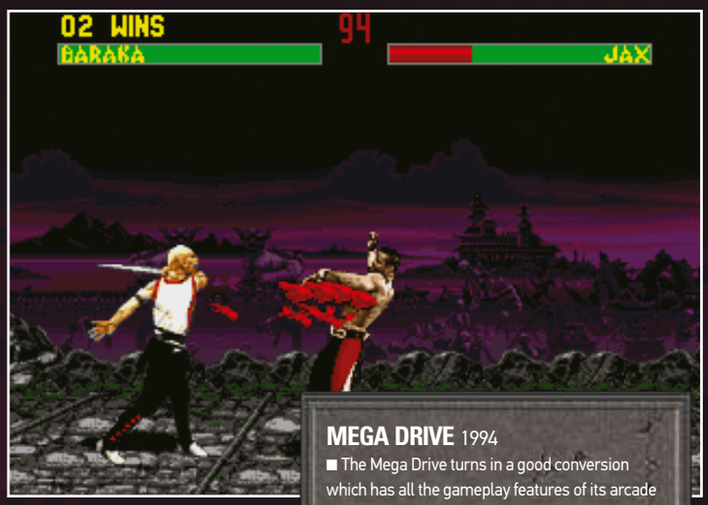
> "IT'S FAIR TO SAY THAT MORTAL KOMBAT II WAS LONG CONSIDERED THE HIGH POINT OF THE SERIES"

» What could be more humiliating than being transformed into a nappy-clad infant?

» The classic Pit fatality returned, this time with a top-down view of the unfortunate fighter's plummet.

KONVERSION KAPERS

With Kombat fever running wild, owners of all platforms wanted a version to call their own. All of them were good, but which ones come out on top?



MEGA DRIVE 1994

■ The Mega Drive turns in a good conversion which has all the gameplay features of its arcade parent. Support for the six-button pad ensures that the game plays well. There's also support for the Activator, if you're insane. The presentation isn't perfect, but it's worth picking up.

SNES 1994

■ This conversion is almost good enough to banish the memory of the sanitised SNES version of the first game – all the gore is present and correct, the game has all of the features of the arcade original and, for our money, it just edges the Mega Drive version on graphics and sound.

MASTER SYSTEM 1994

■ The Master System version is basically a straight conversion of the Game Gear version, but suffers for the lack of a third button with which to block. On the plus side, you do gain a bit of screen space. It's better than most Master System fighters, though there's little competition.

GAME BOY 1994

■ There was a lot going on for the poor old Game Boy to handle, so it's missing a third of the playable characters and Kintaro, as well as all but two of the game's backgrounds. It's still a pretty decent two-button version of the game, but it won't be anyone's first choice..

GAME GEAR 1994

■ The Game Gear version gains colour and Kintaro over the Game Boy version, but loses a little of the speed and smoothness of the Nintendo game. Other than that, it's cut down in the same ways. It's hard to choose one over the other – both are reasonable.

SATURN 1996

■ The Saturn version is very similar to its PlayStation counterpart, but bests it with superior audio and less frequent loading. This one was also released worldwide so it's generally cheaper to acquire, but prices can fluctuate. However, it's still not quite as good as you'd hope given the power of the platform.

32X 1994

■ If you've turbo-charged your Mega Drive, you'll find that the game is essentially the same, but with visuals that show off more colour. It also contains the arcade presentation screens, but the sound is unchanged. It's a toss up between this and the SNES version.

PLAYSTATION 1996

■ We're not sure what happened with this Japan-only version. While it's visually quite nice, there's frequent loading and the music, played through the PlayStation sound chip, sounds less authentic than the 16-bit versions. This is a lso a rarity, so we'd advise that you steer clear of it.

PC 1995

■ With the right sound card, the PC provides the most authentic experience of any conversion – the visuals are excellent, the gameplay is spot-on (down to the habits of the CPU opponents) and all the various speech effects are in. The excellent SNES and 32X versions don't even come close.

AMIGA 1995

■ The Amiga version looks great and is adapted well to one-button controls, even if it does feel a little inauthentic for it. Unfortunately, disk-swapping is required and it contains a few bugs. It compares well to Amiga fighters, but there are better versions out there.

AND THE REST…

■ Versions of *Mortal Kombat II* appeared on *Mortal Kombat: Shaolin Monks* (PS2, Xbox), *Midway Arcade Treasures 2* (PS2, Xbox, Gamecube), *Midway Arcade Treasures: Extended Play* (PSP), *Midway Arcade Treasures: Deluxe Edition* (PC) and *Mortal Kombat Arcade Kollection* (Xbox 360, PS3, PC). The *Kollection* is the best of these.

Q&A: ROB O'FARRELL

The former Probe producer shares his memories of bringing the arcade to home systems

Had you played *Mortal Kombat II* before the ports came to Probe?
We picked up [the original] *MK*, and I was the assistant producer on that so it helped that we'd already done that. Even though the programmer was different between *Mortal Kombat* and *Mortal Kombat II*, they knew each other and talked to each other, so that helped us.

How much access to the original arcade materials did you have?
We had the whole source. We wouldn't have been able to do it otherwise! We knew how to port things over, we were great at that, but we needed to have the original source material. We'd also play the machine, we had the arcade machine up and running.

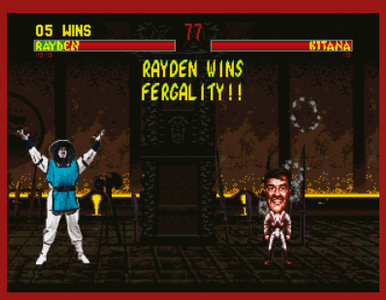
How did you guys get so many platforms done? A few people seem to have worked on most versions.
In truth because there were smaller teams – for *MK II* I think I only had one programmer at the time and one artist, so I didn't have that many people to manage. It was a lot easier, though it was probably as busy. The Game Gear version and the Master System version were done by Keith Burkhill – the Master System version, which we ported across from the Game Gear, took three days. I remember at the time talking to Keith and him saying, "How much am I going to charge?" I said, 'Look, just charge them a load of money.' He said, 'But it's only going to take me five days.' He did it in three.

Terry Ford was the artist I used to convert all the graphics. With Terry, what I used to do – because he was really good at porting the graphics down – he'd send me a batch through and I'd say, 'Nope, not good enough.' Even though they were really good, I just got into the habit of sending them back and he'd always send them back better. So we got into this cycle and we always managed to find that extra bit to make the art look really good.

The one version Probe didn't handle was the SNES version. Why was that?
Sculptured Software picked it up first. They were more of a Nintendo developer, whereas we covered everything but we also focused much more on the Mega Drive side of things. With Probe, we were good at doing a lot of platforms. I think if we'd done all the platforms, I'm not convinced we'd have done as good a job. It actually helped us knowing that we were up against the SNES version.

What challenges did you face?
The Amiga version seemed quite hard – doing the combinations and stuff like that was a tough one. It was just making sure you could do the moves, especially the fatalities, in the amount of time that you had. Some moves we designed originally, you just couldn't get to the combinations in time, so there was tweaking from that perspective. Our biggest challenge with *MK II* was the leap in the amount of characters – there were more characters, more moves, and Acclaim didn't want to go up to the bigger cartridge size as it was more costly. I remember trying to get a compression utility written, it was a bank holiday weekend and I'd borrowed all the PCs in the office, and I started running all these utilities to try and get everything in. It took me until Monday afternoon, the bank holiday, and it still didn't all fit. Then a guy called Nick Pelling came along – on the Tuesday, actually – and wrote this utility for me where he pressed the button and it ran everything in five or ten seconds. I couldn't believe my whole weekend had gone! But it saved *Mortal Kombat II*, we wouldn't have been able to fit it onto the cartridge without it.

In the Mega Drive version, there was a special hidden thing – the Fergality. How did you guys get that in? Did Acclaim or Midway know about it?
I think the Fergality actually appeared in The Sun as a screenshot – that made our day! We always had a running joke about how we could get a Fergus head into the game. Actually, the first time I got Fergus' head into *Mortal Kombat* was the first game. Acclaim was showing the game at CES, and I got a phone call from Fergus saying "Why have I just seen my head bobbing along the sky on a massive screen?" I said "Well, it's only the cheat mode, they're not supposed to be running the cheat mode!" But because we'd got his head into *Mortal Kombat*, we thought about how we could get it in *Mortal Kombat II* and that's where the Fergality came from. Fergus moaned about it, but deep down he quite liked it.



BANJO-KAZOOIE

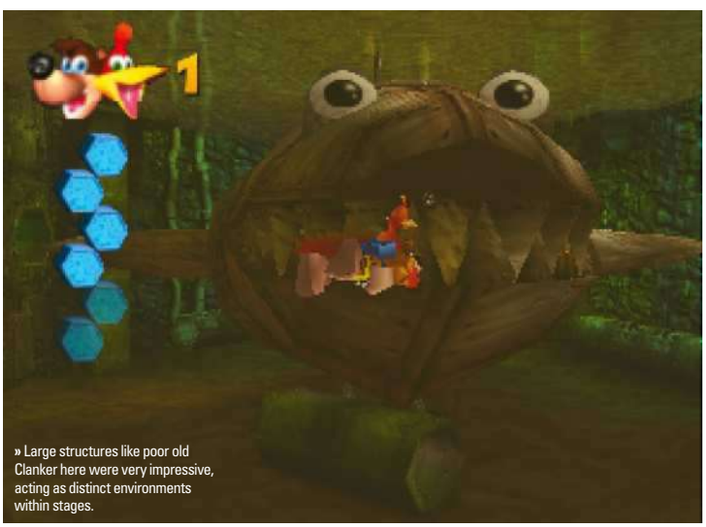
If you were betting on adventurers to defeat an evil witch, neither a lazy bear nor a sarcastic bird would give particularly favourable odds. The unlikely combination of the two, though? Easy money. Join Nick Thorpe as he examines the career of two of Rare's most beloved characters

When we think of console gaming in the late Nineties, there are certain memories that always feature very prominently – the dodgy commentary of football games, the rise of the 3D fighting game and the need to hunt down every last item in 3D platformers. Make no mistake, the 'collectathon' mascot platformer was one of gaming's hottest sub-genres during the N64 years – and *Banjo-Kazooie* was the game that started the trend. Riding high off the success of the *Donkey Kong Country* series and *GoldenEye*, Rare was one of the world's leading development teams and perhaps the only team capable of making the unusual pairing of a sarcastic bird with a lazy bear work, thanks to its trademark sense of humour.

With that in mind, it's funny that neither Banjo nor Kazooie originally appeared in the plans for the game they'd debut in, and it wasn't originally a mascot platformer at all.

It all started with a dream – or more precisely *Project Dream*. *Project Dream* was a SNES adventure game that featured a young boy named Edison, who would become involved with a pirate crew led by Captain Blackeye. The plan was to utilise the same graphical approach as *Donkey Kong Country*, which had become a smash hit largely due to its incredible pre-rendered 3D visuals. However, technology was moving on and Nintendo's next platform was on the way, so work transferred to the N64. This would allow the game to play out in full 3D, but it was a move that caused the team some issues.

» Visiting Bottles to learn new moves was vital to ensure you'd explored every nook and cranny.



» Large structures like poor old Clanker here were very impressive, acting as distinct environments within stages.

» Reaching high vantage points gave some impressive views of *Banjo-Kazooie*'s large stages.

DYNAMIC DUOS

Some of gaming's other great double acts

POPO AND NANA

DEBUT: Ice Climber **YEAR:** 1985

■ Working together to climb the mountain only works so well in *Ice Climber*, as bonus stages for Popo and Nana turn into competition. However, when they decide to team up to fight everybody else they're an absolute nightmare, as players of *Super Smash Bros Melee* will tell you.

BUB AND BOB

DEBUT: Bubble Bobble **YEAR:** 1986

■ They might not perform the fancy team-up moves of other duos, but they make up for it by being probably the cutest pair on the list. They're also incredibly prolific, appearing across not only the many *Bubble Bobble* games but the *Puzzle Bobble* (or *Bust-A-Move*) spin-off series as well.

HEAD AND HEELS

DEBUT: Head Over Heels **YEAR:** 1987

■ The dual heroes of this Eighties classic were the perfect complement to one another, with Head's high jumps and enemy-stunning attacks working extremely well alongside Heels' speed and ability to carry objects. As you controlled both, making use of their abilities was essential to making progress.

SONIC AND TAILS

DEBUT: Sonic The Hedgehog 2 **YEAR:** 1992

■ Sonic's vulpine mate wasn't initially a great help – an excellent invincible shield when controlled by a second player in the main game, but a total liability in the hands of the CPU during special stages. In *Sonic 3* Tails became rather more useful, as he could carry Sonic while flying.

CHANG AND CHOI

DEBUT: The King Of Fighters '94 **YEAR:** 1994

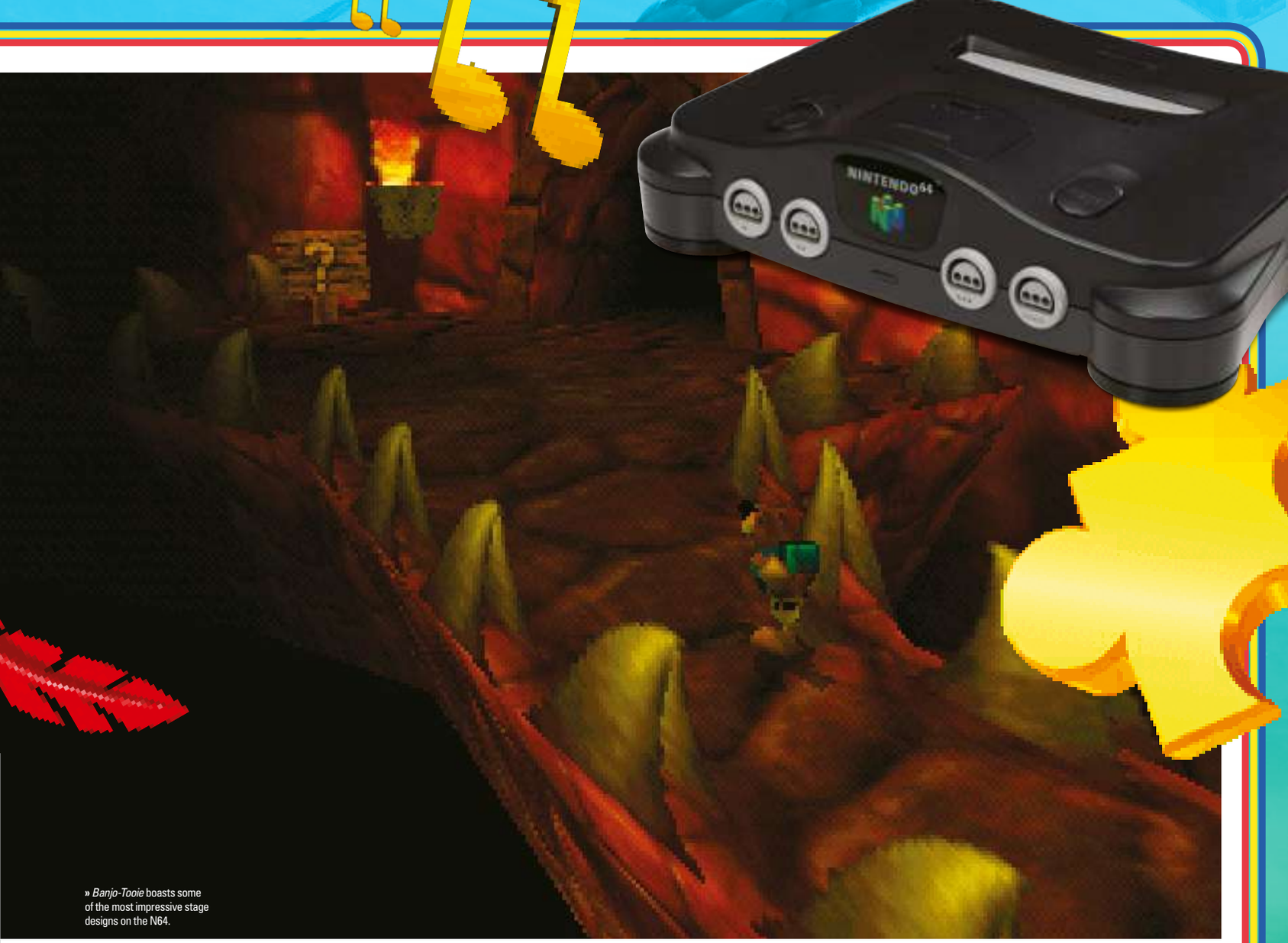
■ These perennial teammates are a criminal duo, noted as much for their fearsome fighting skills as their comically contrasting sizes. Their crowning moment of cooperation came in *Capcom Vs SNK 2*, in which they fight alongside one another to take advantage of the numbers game. Underhanded? Of course – they're criminals.

» The plot of *Banjo-Tooie* was noticeably darker than that of the original, with Bottles being killed early on.

» Grunty shows off her new skeletal look for *Banjo-Tooie*, acquired after being trapped under a boulder in *Banjo-Kazooie*.

"Coming from developing *Donkey Kong Country*, we'd been used to producing extremely high definition in our visuals," explains Chris Sutherland, credited as chief keyboard tapper on *Banjo-Kazooie*. "With the N64, we initially wanted to render the 3D models' geometry directly. Unfortunately the reality of 'Project Reality' was that the kind of tech to handle the quality we wanted was still years away." The team attempted an approach that combined a 3D landscape with 2D sprites, but camera freedom exposed problems with the multi-layered sprites – as the view shifted, overlapping sprites would swap over one another. At the same time, the *Conker* team had made great strides with a fully 3D approach, and *Project Dream* switched to match.

Of course, it wouldn't be the only change that was made. The game slowly metamorphosed, first with the replacement of Edison as protagonist. "When we swapped in a bear we amended the speech for the bear character – so originally he did speak real words, with 'Guhuh' noises too," explains Chris, who provided Banjo's voice. Notably, Kazooie was absent at this point, leading to the early characterisation seen in *Diddy Kong Racing*. Banjo's partner arrived as a justification for a design decision. By this point the game had transitioned to being a more traditional 3D platformer, and the team had wanted to give Banjo a double jump as a result. This was represented with wings emerging from his backpack, but this looked odd on its own, so Kazooie was created to make it make sense.



» *Banjo-Tooie* boasts some of the most impressive stage designs on the N64.

"Our aims were generally to make it bigger and better than the first in terms of world size and variety"

Chris Sutherland

Despite its convoluted route to completion, *Banjo-Kazooie* became an instant classic upon its release in the summer of 1998. The game racked up sales effortlessly and review scores were high all round, with many critics at the time declaring that the game had surpassed Nintendo's classic *Super Mario 64*. It undeniably held the edge in some respects – the rich texturing of *Banjo-Kazooie*'s worlds made it one of the best-looking games to have been released on the N64, and the game's dual protagonists and humorous writing gave it a much greater sense of character. If there was one criticism that could be aimed at *Banjo-Kazooie*, it was one that was common to many 3D games of the time – the camera could be a little wayward, not always being as helpful as it could be.

It's arguable that if no sequel to *Banjo-Kazooie* had been planned, the game's runaway success would have made one inevitable. However, *Banjo-Tooie* was known to be on the cards as the title was mentioned at the close of the first game. "Our aims were generally to make it bigger and better than the first," Chris explains, "both in terms of the world size and also the variety – by having the main characters split up and also by adding multiplayer play." With the collectathon platforming of the original proving so popular, the decision to go with an improved version of the first game made a lot of sense.

Having failed in her attempt to steal the good looks of Banjo's sister Tooty in the first game, the series' antagonist Gruntilda was out for revenge. Two years spent trapped under a boulder ▶

JIGGIES AND JALOPIES

The racing cameos that have bookended Banjo's career

Banjo's debut appearance wasn't actually in his own game, but in Rare's N64 racer *Diddy Kong Racing*. Releasing over six months before *Banjo-Kazooie*, the game features a rather early version of Banjo, with some unusual characterisation. Although his trademark utterance "guhuh!" is present and correct, he speaks English normally when announcing his name. What's more, Kazooie doesn't accompany him, marking the only occasion in which one appeared in a game without the other. Another *Banjo-Kazooie* character does make an appearance, though – the turtle Tiptup, who would later make an appearance as the choir conductor in Bubblegloop Swamp. Also making his debut was Conker, who arrived with a rather sweeter demeanour than the foulmouthed squirrel we saw in *Bad Fur Day*. Like Banjo, he was introduced to build familiarity with players prior to the release of his own game.

At the other end of Banjo's career, we have Banjo and Kazooie making a cameo appearance in *Sonic & Sega All-Stars Racing*. Sega had been speaking with platform holders about exclusive content for individual versions, but in the end only Microsoft came through, securing Rare's characters a spot in the Xbox 360 version. The two actually made for a more sensible fit than many of Sega's own inclusions – after all, *Nuts & Bolts* was a vehicle-based game. While they didn't receive their own tracks or music, they did have a unique special attack. Kazooie would point Mumbo's magic wrench skyward, resulting in a rain of giant jiggies which would batter Sega's racers.

COLLECTION CAPERS

The Banjo-Kazooie games are renowned for their collectables – just how many are there?

BANJO-KAZOOIE

900 NOTES
USED TO ACCESS DOORS IN GRUNTY'S LAIR

100 JIGGIES
USED TO ACCESS NEW STAGES

100 MUMBO TOKENS
USED TO ACTIVATE MUMBO'S MAGIC

45 JINJOS USED TO GAIN JIGGIES

24 HONEYCOMB PIECES GAIN EXTRA HIT POINTS

PLUS...
• BLUE EGGS • RED FEATHERS
• GOLDEN FEATHERS

BANJO-TOOIE

160 NOTE NESTS
EACH CONTAINING 5 NOTES, USED TO LEARN NEW MOVES

10 TREBLE CLEFS
EACH CONTAINING 20 NOTES

45 JINJOS USED TO GAIN JIGGIES

90 JIGGIES
USED TO ACCESS NEW STAGES

18 GLOWBOS
USED TO ACTIVATE MUMBO'S MAGIC

24 HONEYCOMB PIECES GAIN EXTRA HIT POINTS

PLUS...
• RED FEATHERS • GOLDEN FEATHERS
• BLUE EGGS • FIRE EGGS • ICE EGGS
• CLOCKWORK KAZOOIE EGGS
• GRENADE EGGS

BANJO-KAZOOIE NUTS & BOLTS

5230 NOTES USED TO BUY ITEMS

131 JIGGIES
USED TO ACCESS NEW STAGES

92 TT TROPHIES
USED TO GET JIGGIES

» Standard *Banjo-Kazooie* elements such as boss battles remained present in *Grunty's Revenge*.

» New mini-games included sheep dipping and this slide game, in which you collect eggs.

▶ reduced her to a skeletal form, and she was out to restore her body by sucking the life from other creatures. Banjo and Kazooie once again set out to stop her, but not before she manages to kill Bottles. Luckily they retain all of the moves they were taught in the first game, and gain new abilities in the second including the ability to split up.

With *Banjo-Kazooie* having already been an impressive N64 game, the team faced challenges in creating the bigger, better experience they had envisioned. "The *Banjo-Tooie* engine had to cope with much larger worlds, so we had to juggle what was in and out of memory as the player moved around the level," explains Chris. The addition of multiplayer also required a lot of reworking, as the original code assumed that the entire game was single-player. But surprisingly, one of the game's new collectables proved to be one of the most problematic inclusions: "The Clockwork Kazooie bomb turned out to be more of a challenge due to the ability to direct it into other areas of the world like any other playable character and trigger other events, sometimes in the originating area. This meant there was always a good source of bugs, some of which we didn't spot and crept into the final game."

Banjo-Tooie launched late in 2000, to a response almost as enthusiastic as that which had greeted its predecessor. Millions of sales were achieved, and critical response was again universally positive. The game's larger areas and improved visuals were lauded, but both came at a cost. Some design improvements made things slightly more manageable, such as non-respawning notes, but it was simply much harder to keep track of what was going on in the wider world of *Banjo-Tooie* due to the frequent need to backtrack. Also, while the visuals were some of the most detailed to have been seen on the N64, the system often dropped frames as it struggled to cope with them. Despite the promise of a *Banjo-Threeie* at the end of the game, the system was near the end of its life – any sequel was going to have to come on a new machine.

» The early development of *Banjo-Pilot* took place with alternate branding as *Diddy Kong Pilot*.

At the time, it was easy to assume that the new machine would be Nintendo's GameCube. However, this would not come to pass as Nintendo sold Rare to Microsoft in 2002 – but not before Rare had started a variety of Game Boy Advance projects, two of which were Banjo games. The years that followed were rather difficult for the bird and bear, as neither of the Game Boy Advance titles lived up to the standard of the N64 adventures. The first of these was an isometric adventure set between the first two games, *Banjo-Kazooie: Grunty's Revenge*.

Upon its mid-2001 unveiling *Grunty's Revenge* looked to be targeting a similar experience to the home console games, with large open areas, moves to be learned including Kazooie's ability to fly, and lots of items to collect. The sale of Rare put the game's future in doubt, but Microsoft allowed the project to continue as the Game Boy Advance was not competing against any Microsoft products – however, a publisher would have to be found. THQ picked the game up in 2003, and subsequent interviews with Rare explained that the original "sprawling, unwieldy" maps had been refined. However, comments made by a former Rare programmer since suggest that the problem was one ▶

» Though the Game Boy Advance couldn't handle large 3D environments, the isometric perspective simulated them well.

of cartridge capacity – stages and features needed to be cut to stay within the size limit, dropping the game from a planned nine stages to six, including the Spiral Mountain hub world. One of the features cut was flight, which simply wasn't working well with the 3D collision engine that was introduced during the game's publisher-less year.

Banjo-Kazooie: Grunty's Revenge was released in the autumn of 2003 to a mixed response, with reviews ranging from highly desirable 90% scores to a rather damning 4/10. The majority of critics agreed that the main adventure was of a high quality, singling out the gameplay for praise. However the cutbacks had clearly taken their toll, as the most common complaint was that the game was entirely too short, ending just as it seemed to be getting going.

The next game, *Banjo-Pilot*, was actually revealed to the world shortly before *Grunty's Revenge*, but would emerge much later due to a rather tortured development. Originally announced in May 2001 as *Diddy Kong Pilot*, the game was an aerial racer with a Mode 7-style floor effect and tilt controls for steering. Unfortunately, the game wasn't progressing tremendously well and missed its scheduled early 2002 release date. But any hope of fixing it as a Diddy Kong game flew

» (Above)Time Trial races in *Nuts & Bolts* awarded trophies, which in turn awarded jiggies.
» (Right) *Nuts & Bolts* finally introduced the Stop 'n' Swop feature first promised in the original game.

away when Rare was sold to Microsoft. As well as suffering from the same need to find a publisher that delayed *Grunty's Revenge*, the team now needed to perform a visual overhaul to remove Nintendo's characters. Luckily, Rare had a mascot character ready to climb into the cockpit – Banjo would have his own racing spin-off.

But first, the disappointing aspects of *Diddy Kong Pilot* needed to be corrected. Rare chose to go down a new route, resulting in a total overhaul of the game. The big problem with *Diddy Kong Pilot*'s flat landscapes was that they didn't make a whole lot of sense in a game about flight, a glaring flaw that the game's new engine corrected with 3D voxel landscapes. While tracks were short, they were impressive for the hardware. By the spring of 2004, *Banjo-Pilot* was shown off in screenshots for the first time in a couple of years, sporting its new engine and looking very nice. However, this version of the game was quietly cancelled later in the year, with speculation suggesting that the game didn't run quickly enough under the new engine.

Having entered development around the time of the Game Boy Advance launch, *Banjo-Pilot* finally arrived in January 2005, by which point the console had already been superseded by the Nintendo DS. Returning to the flat tracks of the original *Diddy Kong Pilot* design, the game was a solid

» While very little traditional platforming was found in *Nuts & Bolts*, a little bit still remained.

SILICON SNIGGERS

How the N64's development hardware kept Rare laughing

With the *Banjo-Kazooie* series being well-known for its sense of humour, you might imagine that the development team at Rare would have an established comedy dynamic behind the scenes – and you wouldn't be wrong. "The N64 titles were developed on Silicon Graphics Indy workstations," Chris explains. "The way those operated, you could silently log into anyone else's machine without them knowing, but you still had access to the hardware. That meant you could grab a screenshot of someone's desktop, or even from their webcam if they had one switched on – seems kind of crazy nowadays, I know!"

It does, but we can only briefly imagine our own applications for this prankster's heaven before Chris reveals how Rare's staff took advantage of it. "During development, when you least expected it, someone would log in and play some comedy sound files on your machine, to your surprise and others' amusement – ah, see what fun we're missing now with internet security!" We can only hope that the occasional Kazooie "bree!" sound was thrown in...

> **"Some people want to be '100 percenters' and so you want to give them that challenge"**
>
> Chris Sutherland

but unremarkable kart-style racer, differentiated mostly by the floaty physics of its vehicles. A lukewarm critical reception followed as a result, marking a rather underwhelming farewell to Nintendo hardware.

Despite Rare's acquisition by Microsoft, Banjo and Kazooie took a long time to reach the Xbox family, completely missing the big black box and finally appearing on the Xbox 360. But when they finally made the jump, it's safe to say that the game was not what many fans had expected. The first teaser video revealed that the game was not to be *Banjo-Threeie* in the traditional style – Banjo and Kazooie had received makeovers, sporting a chunkier look than on the N64. However, it was the reveal that delivered the biggest surprise. Collectables were out, the old moves were out, and even platforming was given the boot. *Banjo-Kazooie: Nuts & Bolts* would be a vehicular action game.

Grunty, now reduced to a skeletal head, was out for revenge against Banjo and Kazooie. The heroic pair had rather let themselves go though, having spent the last eight years doing anything other than adventuring. They're sent to finally settle their differences by the Lord Of Games, a creator of games who decrees that they will compete for control of Spiral Mountain, with the losing team forced to work in his game factory. From there Banjo and Kazooie need to obtain jiggies from vehicle-based challenges, which they have the freedom to approach in any manner thanks to highly customisable vehicles.

Perhaps influenced by recent assessments of collectathon platformers which tended to be heavily critical, the *Nuts & Bolts* team rather reduced the number of collectables in the game. The story also took a critical approach to the item-gathering gameplay of the Nintendo 64 games, lampooning it with typical self-deprecating humour. While Chris didn't work on *Banjo-Kazooie: Nuts & Bolts* (save to provide the voices for the characters), the balance of collectables is a design point that he is keen to talk about. "Some people want to be '100 percenters' and so you want to give them that challenge," he explains. "Ideally as long as a game can make the player *want* to collect the needed items without it feeling like a list of chores, then the numbers of the items is less relevant, but obviously the more items you need to collect the harder it is to keep the player feeling enthused." Ultimately, only jiggies and notes remained from the classic *Banjo-Kazooie* games, with new time trial trophies adding a third level.

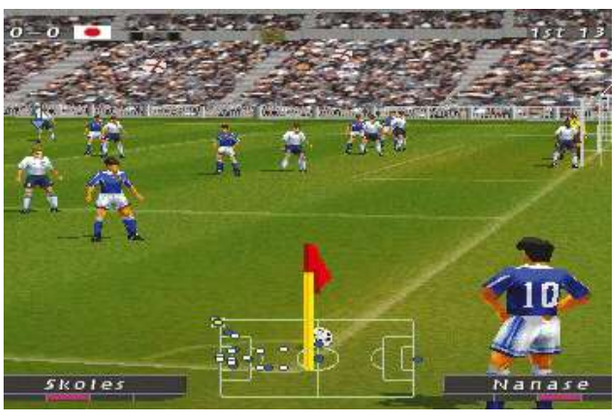
As you might expect, long-term fans of the series gave *Banjo-Kazooie: Nuts & Bolts* a rough ride. The visual changes were poorly received, but it was the radical gameplay changes that really provoked online anger, with a vocal minority claiming that the game was a monstrosity that had ruined the series. However, the reception from those less heavily invested in the idea of a new platformer was actually rather good. The game was praised for its long-term value, with the vehicle building aspect of the game greeted enthusiastically by reviewers. However, some concerns were raised with loose handling. Structurally, the missions came in for criticism for being repetitive, and the game's interfaces and tutorials were considered somewhat obtrusive and not quite up to scratch. Despite the criticisms, the reception was good and exceeded that of the Game Boy Advance games.

Though *Nuts & Bolts* was the last game to star Banjo and Kazooie, they've been sighted in a couple of cameo appearances since, joining the cast of *Sonic & Sega All-Stars Racing* on the Xbox 360 and acting as a player skin in *Minecraft: Xbox 360 Edition*. In spite of their relatively quiet spell, the enduring popularity of the characters means that we'd never be surprised to see them return. Truly beloved mascots are hard to come by in videogames, and the excellence often displayed in the *Banjo-Kazooie* games serves to solidify the appeal of the unusual pairing. So while there are no plans for the duo on the horizon, don't be too surprised if you hear the "guhuh!" that has become symbolic of the series emerging from an Xbox console in the near future. ✱

» The impressive environments of *Nuts & Bolts* drew inspiration from the N64 games, retaining recognisable elements like this striped bridge.

TOP 25 PLAYSTATION GAMES

The classic library of Sony's world-conquering console is overwhelming – readers provided over 150 nominations for its top 25 games. Join Nick Thorpe to see if your favourites made the cut…



ISS Pro Evolution

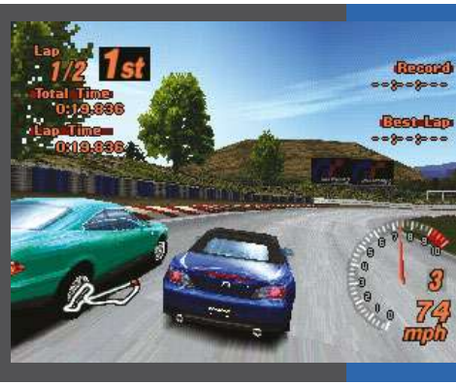
DEVELOPER: KONAMI
YEAR: 1999 **GENRE:** SPORTS

25 **Konami's *International Superstar*** *Soccer* had long been a fantastic choice for gamers looking for an alternative to EA's *FIFA* series, and this game represents the transition from the *ISS Pro* series to the modern *Pro Evolution Soccer* line. *ISS Pro Evolution* introduced club teams and the Master League mode, bringing it closer to audience tastes while evolving the series' trademark simulation gameplay with additional dribbling tricks and an extremely potent one-two pass.

Gran Turismo 2

DEVELOPER: POLYPHONY DIGITAL
YEAR: 1999 **GENRE:** RACING

24 **It can be** hard to follow up the phenomenal success of a game like *Gran Turismo*. Polyphony Digital's approach was to retain the gameplay of the original and massively increase the amount of content available, including over 600 cars and 27 tracks. The game also widened in scope, with the new additions including off-road tracks and rally cars. The scale of the game required it to be split across two discs, with the arcade and simulation modes now contained separately.



Einhänder

DEVELOPER: SQUARESOFT
YEAR: 1997 **GENRE:** SHOOT-'EM-UP

23 **Shoot-'em-ups are definitely** outside of Squaresoft's RPG comfort zone, but you wouldn't have known it when playing *Einhänder* – the game was pretty conventional, but of a very high quality. The gameplay was enhanced by the combo-based score system and modular Gunpod power-ups, useful for taking down the big bosses. It's the only import game to reach your top 25, and we can only imagine how high it would have climbed if it had received a UK release. We're hoping for a PSN release to correct the injustice.

Time Crisis

DEVELOPER: NAMCO
YEAR: 1997
GENRE: LIGHTGUN SHOOT-'EM-UP

22 **The first of** Namco's arcade conversions to make our list, *Time Crisis* provided an excellent rendition of the rescue mission that had enthralled arcade gamers in 1995, including all of the incredible set pieces and secrets. It's easy to take the game for granted now, but the action pedal was a revolution in lightgun game design – the ability to take cover allowing the player an additional means of avoiding damage beyond simply firing faster than the enemy – though the constantly running timer means that you'll rely on your sharpshooting frequently.

But Namco didn't stop there – the game included an exclusive home console mission that featured entirely new stages and boss battles. In the new mission, protagonist Richard Miller is tasked with infiltrating a hotel which happens to be a front for an illegal weapons factory, run by the villainous Kantaris. The new mission changed the dynamics of the game, introducing a grading system which determined the route players took through the game, offering players the chance to visit different locations and fight different bosses on each playthrough. The inclusion of the extra mission massively extended the lifespan of the game and gave arcade veterans a key reason to pick the game up.

The story of *Time Crisis* on the PlayStation is as much about the hardware as the software. The game was incompatible with previous lightguns, and came bundled with Namco's new lightgun. The G-Con 45 featured extra buttons along the barrel, acting as a substitute for the arcade game's foot pedal, and plugged into the console's video output to enhance accuracy. Other developers adopted Namco's gun as a new standard, as thousands of players picked up the hardware and its bundled killer app.

"A great shooter with music to die for"
gmintyfresh

"Stupidly addictive once you know what you're doing, and the songs are great too."
TwoHeadedBoy

Alundra

DEVELOPER: MATRIX SOFTWARE
YEAR: 1997 **GENRE:** ACTION-RPG

21 **The PlayStation is** renowned for its excellent selection of Japanese RPGs, but few of them took the action-RPG approach. Of the ones that did, *Alundra* was the best, which comes as no surprise. While Matrix Software isn't the most well-known studio, it was founded by staff from Telenet Japan and Climax Entertainment – the studio that was responsible for *Landstalker* on the Mega Drive. *Alundra*'s plot revolves around the titular elf who has wound up shipwrecked in a strange village. He has the ability to enter the dreams of others, which he needs to employ in order to work out why the inhabitants of the village are having dreadful nightmares. Standing apart from its contemporaries with great 2D artwork and a long, satisfying quest, *Alundra* is a classic that fans of the 2D *Zelda* games will particularly appreciate.

Resident Evil

DEVELOPER: CAPCOM
YEAR: 1996 **GENRE:** SURVIVAL-HORROR

20 **Capcom's survival-horror game** made a huge impact on its debut, popularising survival-horror and shifting over 5 million copies. Locked inside a deadly mansion filled with mutated monstrosities, your goal was to take control of special forces agents Jill Valentine or Chris Redfield and get out alive – along with as many of your comrades as you could save. With limited ammunition, there was no hope of laying waste to every zombie you could find – a tension-building approach which was novel in 1996. The fantastic 2002 GameCube remake means that the original *Resident Evil* doesn't have the impact it once did – but just remembering those dogs crashing through the window easily justifies the game's place in this list.

PaRappa The Rapper

DEVELOPER: NANAON-SHA
YEAR: 1996 **GENRE:** RHYTHM-ACTION

19 **The game that** popularised rhythm-action as we know it today, *PaRappa The Rapper* is one of the PlayStation's more offbeat hits. The core gameplay in *PaRappa* is simple – each of the game's six stages involves PaRappa rapping with an instructor, whose lines he must repeat by following the button prompts at the top of the screen. While the game received some criticism for its brevity, *PaRappa*'s charms won over gamers. The use of paper-thin cartoon characters in a 3D world is unique, the raps are memorable and PaRappa finds himself in some amusing predicaments, including queuing for the toilet. For that alone, PaRappa is possibly the most relatable character in any videogame ever.

Tomb Raider

DEVELOPER: CORE DESIGN

YEAR RELEASED: 1996 **GENRE:** ACTION ADVENTURE

18 **While *Tomb Raider*** is one of the PlayStation's most iconic series, the annual sequels meant that voting was divided between five games and the series had a tough time in this poll as a result. The original is the game which makes your final cut, and a fine choice it is – its mixture of platforming, puzzle-solving and gunplay was groundbreaking in the mid-Nineties, a time when developers were still finding their feet when it came to making 3D games. The first game in the series has a heavier emphasis on puzzle-solving and exploration than its PlayStation sequels, and is packed with memorable moments including an encounter with a Tyrannosaurus Rex. *Tomb Raider*'s success was phenomenal, catapulting Lara Croft to stardom as one of gaming's first female protagonists and launching a series that has seen myriad sequels as well as movies and merchandise.

Silent Bomber

DEVELOPER: CYBERCONNECT2

YEAR RELEASED: 1999 **GENRE:** ACTION

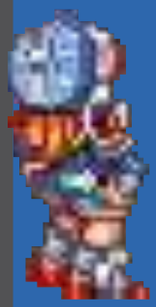
17 **This futuristic action** game takes the classic top-down shooter format and introduces its own twist – instead of shooting your targets, your method of attack is to lay down bombs and detonate them from afar. This is complicated by a whole host of extremely aggressive enemies, ensuring that your protagonist Jutah is constantly in motion. The result is a unique game featuring a high level of difficulty and satisfyingly fast-paced action. It's not uncommon to find yourself fighting multiple enemies while avoiding the fires emerging from recently destroyed targets, which could have proved technically challenging. CyberConnect 2 managed to get the PlayStation to handle this visual overload admirably, and provided an appropriately energetic electronic soundtrack to accompany the carnage.

Tony Hawk's Pro Skater 2

DEVELOPER: NEVERSOFT

YEAR RELEASED: 2000 **GENRE:** SPORTS

16 ***Tony Hawk's Pro Skater 2*** was one of the most well-timed games ever – when it launched in 2000, you couldn't walk around town without seeing skateboarding teenagers. The original *Tony Hawk's Skateboarding* had been a surprise hit for Activision in 1999, meaning that *Tony Hawk's Pro Skater 2* had a lot to live up to. The basic goal of the game hadn't changed, however improvements could be seen in almost every area of the game. Stages were larger, with twice as many objectives and more secret areas to find. Most importantly, players could now perform manuals on flat ground, allowing for continued combos. Better yet, the game included two new user creation modes, which allows players to design their own custom skaters and stages, massively expanding the lifespan of the game. The soundtrack pleased the aforementioned skating teens and the improved visuals rounded off a top-notch game.



Grandia

DEVELOPER: GAME ARTS

YEAR: 1999 **GENRE:** RPG

15 ***Grandia*** **took ages** to arrive in the UK but was worth the wait. Ported from the Saturn original, this RPG avoided the genre archetypes of random encounters and turn-based actions. The combination of 2D sprites on 3D backdrops has aged well, too.

WipEout 2097

DEVELOPER: PSYGNOSIS

YEAR: 1996 **GENRE:** RACING

14 **Psygnosis's sequel took** everything that was great about the original and improved on it, introducing one of gaming's greatest power-ups – the Quake Disruptor. The more forgiving level of difficulty helped the game to reach a wider audience.

Tekken 3

DEVELOPER: NAMCO **YEAR:** 1998

GENRE: BEAT-'EM-UP

13 **A refreshed cast** and improved visuals took *Tekken 3* to the top of the 3D fighting scene in the late Nineties. The game also introduced the Eddy Gordo, a favourite of button-mashers worldwide – perhaps explaining why it didn't place higher.

Die Hard Trilogy

DEVELOPER: PROBE ENTERTAINMENT

YEAR: 1996 **GENRE:** VARIOUS

12 **Probe made the** best of this movie licence by designing individual games for each of the three films represented. Packed with irreverent humour and buckets of blood, the only thing it's missing is support for the G-Con 45 lightgun.

Gran Turismo

DEVELOPER: POLYPHONY DIGITAL

YEAR: 1997 **GENRE:** RACING

11 **Seeing *Gran Turismo*** in action for the first time was mindblowing – console racing games had never looked so realistic. It provided long-term value too, featuring 140 cars and 11 tracks. Little wonder it sold over 10 million copies, becoming the best-selling PlayStation game of all time.

Rage Racer

DEVELOPER: NAMCO

YEAR RELEASED: 1996 **GENRE:** RACING

10 ***Rage Racer* marked** the point at which the PlayStation entries of the *Ridge Racer* series were no longer tied to the arcade offerings. The game offered a new take on the series, with the scenery being more muted in colour than in previous releases. However, it was still spectacular scenery – new to the series was the emphasis on courses with great height variations, leading to memorable sights such as the waterfall on your climb towards the first track's tunnel and plunging downhill straights. The move to console exclusivity brought a main game with more depth, as you competed to earn cash with which to upgrade your vehicle to your liking. You needed the upgrades too, as later stages became very tricky to pass – especially given that you were limited to three retries. It wasn't the best-selling game in the series, but proved to be a key influence on its successors.

"I realised that console gaming had surpassed PC gaming when this was running fullscreen, with a controller"
SeanR

Doom

DEVELOPER: GT INTERACTIVE

YEAR RELEASED: 1995 **GENRE:** FIRST-PERSON SHOOTER

8 **This classic first-person** shooter might have appeared on every system under the sun, but that doesn't diminish the impact of the PlayStation release one bit – quite the opposite, in fact. Prior consoles had struggled to handle *Doom*, dropping enemies, windowing the action and even removing the music to get everything to fit. While PlayStation *Doom* didn't contain everything from the PC version, it was easily the most complete and playable console version available. The game includes over 50 stages taken from *Doom* and *Doom II* on the PC, as well as levels exclusive to the PlayStation, and the addition of a new ambient soundtrack further intensifies the fear factor that *Doom* is famous for. Best of all, it includes support for Sony's oft-forgotten link cable, allowing two players to have a deathmatch or team up to battle the monstrous hordes. First-person shooters evolved rapidly over the life of the PlayStation, but the quality of *Doom*'s conversion secures its spot.

Final Fantasy VIII

DEVELOPER: SQUARESOFT

YEAR RELEASED: 1999 **GENRE:** RPG

9 **For gamers whose** *Final Fantasy* experience began and ended with *VII*, *Final Fantasy VIII* came as a shock – but even those who had followed the series from its days on Nintendo consoles were in for some surprises. While the complete refresh of cast and plot was a series tradition, Squaresoft's decision to overhaul the visual style of the series wasn't expected by many gamers. The gameplay was also overhauled. Magic was now drawn from enemies, and summoned creatures played a far more crucial role in the game. The new Junction system allowed players to tie magic to stats for boosts – a deep but initially overwhelming addition. The changes weren't to everyone's tastes, explaining its lower position relative to its predecessor, but *Final Fantasy VIII* maintained the high quality associated with the series and ranks as one of the PlayStation's most visually stunning games.

Tekken 2

DEVELOPER: NAMCO

YEAR RELEASED: 1996 **GENRE:** BEAT-'EM-UP

7 **The original *Tekken*** became the best 3D fighting game on the PlayStation almost by default – it was clearly better than the likes of *Battle Arena Toshinden*, but was still in need of refinement. *Tekken 2* provided the tune-up that saw the series become a serious contender in the 3D fighting world. Staple moves such as reversals and back throws were introduced here, as well as competitive modes like Team Battle and Survival which cemented the game as a multiplayer favourite. *Tekken 2* introduced a range of new characters, from series stalwarts such as Jackie Chan homage Lei Wulong to comedy characters such as the boxing kangaroo Roger. Additionally, unlocking the sub-bosses was now a much more rewarding endeavour, as the returning characters were fleshed out to match the standards of the new sub-bosses, greatly expanding the cast's variety and giving the game increased long-term appeal.

"As much as I loved the first one, this just fleshed out the shell of a game it was"
Droo

Ridge Racer Type 4

DEVELOPER: NAMCO

YEAR RELEASED: 1998 **GENRE:** RACING

6 **Towards the end** of the Nineties, it was clear that trends in the gaming market were changing. The colourful visuals and hyperactive soundtrack that had served *Ridge Racer* so well at the PlayStation's launch were out of fashion, and players increasingly demanded longer games with more content. Luckily for Namco, somebody had a finger on the pulse of gaming because *Ridge Racer Type 4* shifted effortlessly to match contemporary tastes. The game adopted pastel-coloured skies and a more relaxed soundtrack, while the racing – as excellently drifty as ever – took place across more tracks and cars than ever before in the new Grand Prix season mode.

Castlevania: Symphony Of The Night

DEVELOPER: KONAMI

YEAR RELEASED: 1997 **GENRE:** PLATFORMER

5 **Konami's platformer was** overlooked on release but has gained a thoroughly deserved reputation for excellence over the years. *Symphony Of The Night* moved away from the linear template of previous *Castlevania* games, opting instead for a single, massive map that opened up as new abilities were gained in a manner similar to Nintendo's *Metroid* games. The game provided huge scope for exploration, especially given that when you think it's all over, Dracula's castle inverts and provides you with even more to do. It's an expensive PlayStation game, but fan demand has seen it ported elsewhere since.

Tenchu: Stealth Assassins

DEVELOPER: ACQUIRE

YEAR RELEASED: 1998 **GENRE:** STEALTH ACTION

4 **Ninjas had been** the subject of countless games before *Tenchu*, but they were primarily action games. *Tenchu* explored a more authentic ninja experience, by requiring the player to exercise caution and stealthily assassinate targets. The game offered a great deal of freedom in terms of carrying out your objectives, but was not for the impatient – observation was key as you tried to identify the perfect time to strike. We have to admit to being surprised by just how high *Tenchu* placed, but it's well worth revisiting – dropping from the roof and slicing up an unsuspecting guard is a thrilling experience.

Metal Gear Solid

DEVELOPER: KONAMI

YEAR RELEASED: 1998 **GENRE:** STEALTH ACTION

3 **The technology of** the 32-bit era gave ambitious developers the tools they needed to provide cinematic presentation – and none were more ambitious in that regard than Hideo Kojima. *Metal Gear Solid*'s high quality cut-scenes provided a lesson in bringing the big screen experience to consoles. But *Metal Gear Solid* wasn't just great to watch, as it featured tightly designed gameplay that inspired a number of stealth imitators. However, none of them could match its creativity, as the game's ingenious design leveraged everything from the contents of your memory card to its own packaging.

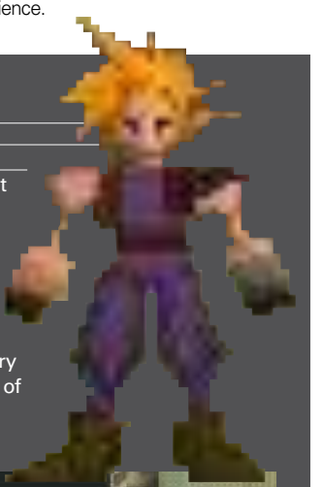
"This was pretty much the reason I even BOUGHT a Playstation"
gunbladelad

Final Fantasy VII

DEVELOPER: SQUARESOFT

YEAR RELEASED: 1997 **GENRE:** RPG

2 **Before 1997, publishers** were under the impression that Japanese RPGs just weren't where the big money was to be made. Squaresoft's *Final Fantasy VII* changed that perception forever, selling over 9 million copies and causing a boom in RPG localisation. The game introduced a generation of gamers to the genre and spawned a variety of sequels, as well as a movie. *Final Fantasy VII* was an epic on an unprecedented scale. The game's use of pre-rendered backgrounds allowed the game a visual impact unique within its genre, combining with Nobuo Uematsu's incredible soundtrack to aid the story in emotionally affecting players. And boy, what a story – with a memorable cast of heroes, as well as an iconic villain involved in one of gaming's most notoriously shocking moments, it lingers in the memory long after completion.



"Any game that rewards an insane amount of practice and time spent with the chance to play as a block of processed soya curd must be the best of its generation"
earlymodernsteve

retro GAMER READERS' CHOICE

Resident Evil 2

DEVELOPER: CAPCOM **YEAR RELEASED:** 1998 **GENRE:** SURVIVAL HORROR

With the success of *Resident Evil*, a sequel was inevitable. After briefly planning a spin-off set in the ruins of the first game's mansion, Capcom put plans into place for a new game set in and around Raccoon City's police department, starring rookie cop Leon S Kennedy and student Elza Walker. If the latter name seems unfamiliar, your memory isn't failing you. *Resident Evil 2* had a lot to live up to – and Capcom knew it. A year into development, the new game wasn't living up to the team's expectations. Rather than trying to fix the game's problems, Capcom took the bold decision to scrap the game and start again. The number one spot achieved here just goes to show how well that risk paid off.

Now starring Leon and Claire Redfield, the sister of Chris from the original game, the *Resident Evil 2* that made it to market retained the basic setting of the scrapped sequel but little else. While the basic idea of the game remained much the same as the original – escape with your life, as well as any survivors you find – the new setting made for big changes. Where the original game turned up the heat slowly by introducing a single zombie after a few scenes of build-up, *Resident Evil 2* drops you straight into the fire, placing you on the already infested streets of Raccoon City.

Resident Evil 2 employs many of the same mechanics as the original game – the same controls, the limited saves and those item storage chests all make a return. However, it improves on the original in a variety of ways. Characters now respond to damage visually, clutching wounds and even limping as their health drops, and a variety of mini-games are provided for players who have finished the game, including the brilliantly ridiculous Tofu Survivor mission.

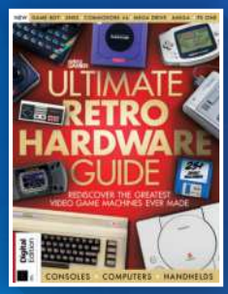
But the biggest improvement was the 'zapping' system, which allowed the two characters to experience each other's scenarios. Actions taken with one character will affect the other character's experience – defeating an enemy during your first run may well remove it for the second, while using up items during the first run can make it harder to get through the second. This feature gave the game massively improved replay value over its predecessor.

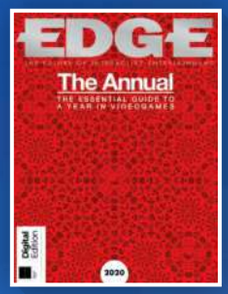
Resident Evil 2 was a narrow winner in the voting, but it's a worthy one which represents Capcom at its absolute best. The game's mechanical improvements were subtle enough to keep things immediately familiar to fans of the original game, but the new setting allowed the game its own distinct identity. Refusing to compromise on quality caused short-term strife, but the resulting game has stood the test of time.

Five Reasons Why It's Great

1. It brilliantly handled the diminished shock value of zombies by introducing iconic enemies like the Licker.
2. The plot doesn't spiral into the complex nonsense of later games in the series.
3. It introduced Leon, who also starred in the excellent *Resident Evil 4* as well as the best bit of *Resi 6*.
4. Raccoon City is the perfect setting for *Resident Evil*, which is why it's so frequently revisited.
5. How many other games let you run around as a giant block of tofu?

Discover the origins of all your favourite characters





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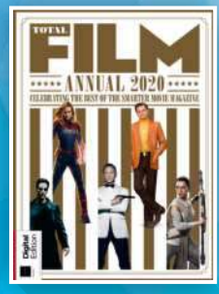

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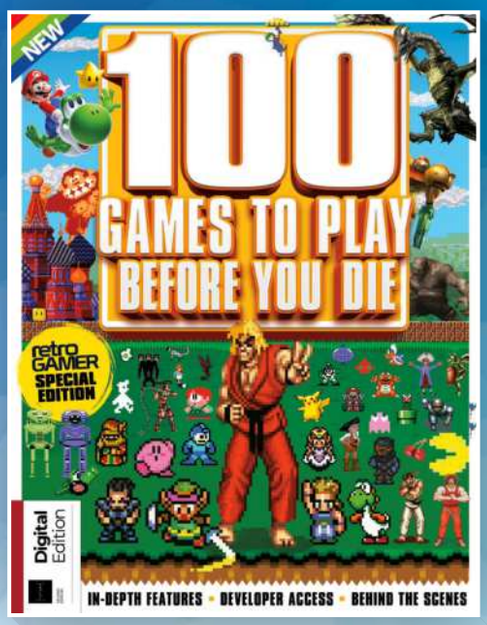

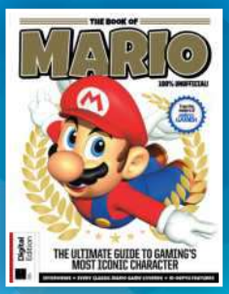

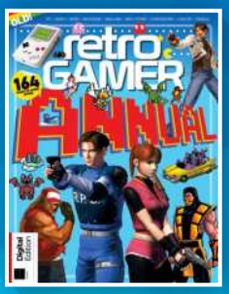

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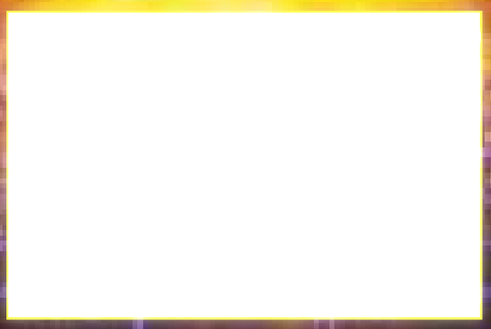
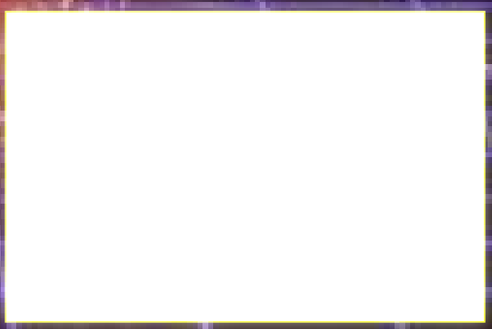
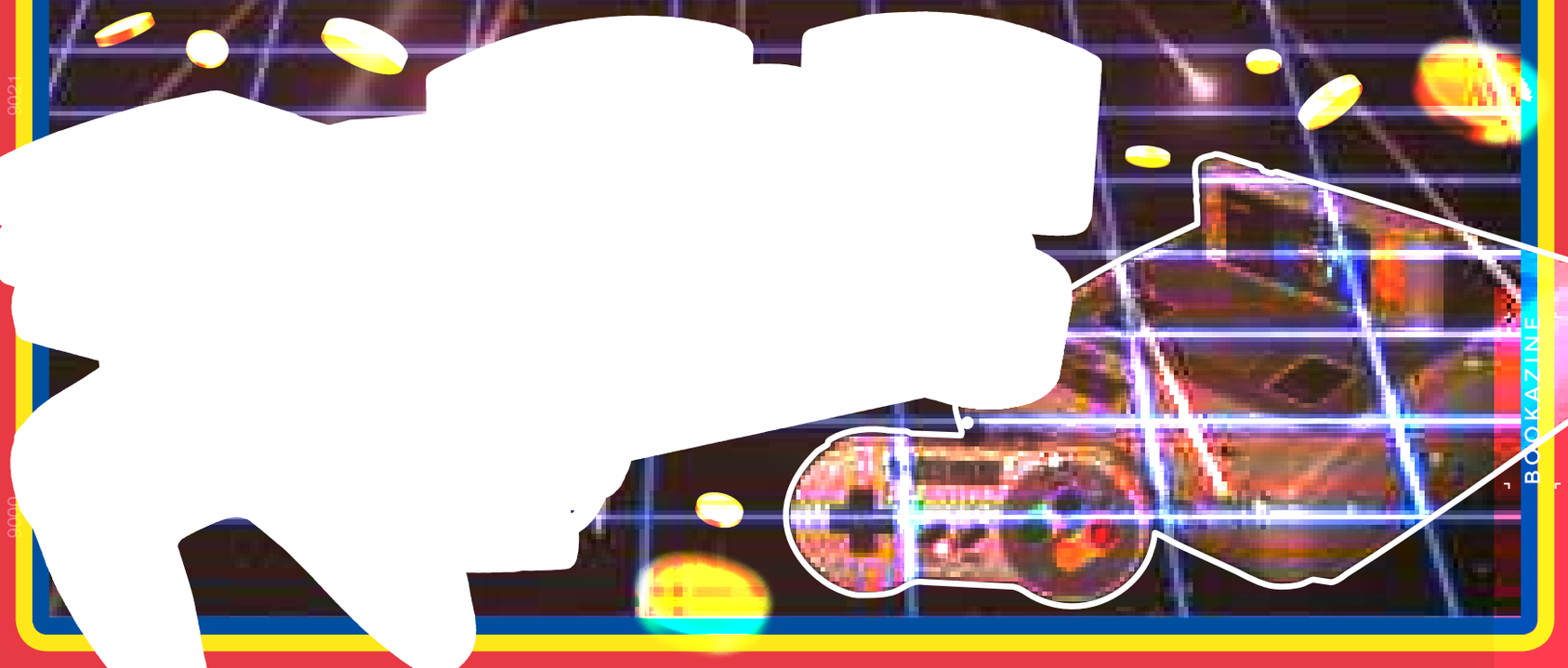
THE KEY GAMES FROM THIS AMAZING DECADE



HUGE FEATURES ON CLASSIC TITLES



THE BEST GAMES FROM THE BEST SYSTEMS



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